A TECHNICAL LIBRARY IN COOPERATIVE PROGRAMS

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Technical Aids Branch
Office of Industrial Resources
INTERNATIONAL COOPERATION ADMINISTRATION
Washington 25, D.C.

F O R E W O R D

One of the basic problems in developing an industry program in an underdeveloped country is the utilization of available technical materials. The proper organization and operation of a technical library is one of the most important factors in solving this problem.

This manual has been prepared to help overseas staffs with these responsibilities. It provides helpful suggestions for selecting, acquiring, classifying, storing and using technical books and publications. It does not serve as a substitute for a comprehensive librarian training program.

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TABLE OF CONTENTS

Chapter		Page
	INTRODUCTION	1
I.	AIMS AND FUNCTIONS OF A TECHNICAL LIBRARY	3
	Objectives of the ICA Cooperative Industry Program	4
	Small (or Beginning) Technical Information Center	5
	Larger (or More Mature) Technical Information Center	7
	Primary Elements of the Cooperative Industry Program	9
	ICA Industrial Technical Aids Services	9
	Technical Inquiry Service	10
	Technical Digest	10
	Industrial Reports Service	10
	Training Materials Service	10
	Technical Literature Service and U.S. Book Exchange Service	10
	Overseas Industry Materials	11
	Other Specialized Technical Information	11
	Technical Film Service	11
	Technical Exhibit Service	11
	Specific Functions of the Library	11
	Procurement	12
	Arrangement	12
	Classification	12
	Identification	12
	Record Keeping	12
	Distribution	12
	Translation	12
	Reproduction	12
	Referral	12
	Advisement	12
	Inter-Library Loan	13
	Clearinghouse	13
	Suggested Reading	13
II.	LIBRARY PERSONNEL	14
	Staff Requirements	14
	Basic Staff Needs	14
	Directing the Library	14
	Duties and Responsibilites	15
	Selecting, Organizing, and Servicing Materials	15
	Clerical and Routine Work	16
	Size of the Staff	16
	On-the-Job Training	16
	The Role of the Trained Consultant	18
	Suggested Reading	18

Chapter — Page

III. LIBRARY FACILITIES AND EQUIPMENT 20
Planning 20
Location 20
Size and Arrangement 21
Furniture and Equipment 25
Good Housekeeping 30
Suggested Reading 31

IV. SELECTION AND ACQUISITION OF MATERIALS 32
Sorting and Weeding 34
Record Keeping 35
Suggested Reading 36

V. ARRANGING THE COLLECTION 41
Classification Systems 41
How to Classify a Book 44
Subject Indexing 45
Shelf Lists 46
Typing Rules 47
Vertical Files 49
Periodicals 50
Abridged Standard Industrial Classification Code 52
Suggested Reading 58

VI. PHYSICAL CARE OF THE COLLECTION 60
Labeling New Books 61
Shelving 62
Mending and Binding 63
Inventory 63
Suggested Reading 64

VII. SERVING THE LIBRARY'S USERS 65
Arranging the Library for Use 65
Handling Inquiries 68
Exhibits and Displays 71
Loan Policies and Records 71
Loan Records 72
Book Charging 73
Periodical Charging 74
Charging Vertical File Materials 75
Charging Films and Filmstrips 75
Circulation Statistics 76
Registration of Library Users 77
Making the Library's Resources Known 78
Selected Lists of Library Accessions 79
Bibliographies and Reading Lists 79
Articles in Periodicals and Newspapers 80
Outside Displays and Exhibits 80
Briefings and Conducted Tours 80
Suggested Reading 81

Chapter		Page
VIII.	DISTRIBUTION OF MULTIPLE-COPY MATERIALS	82
	Material for Distribution	82
	Identifying Multiple-Copy Material	83
	Storing Free-Distribution Material	84
	Inventories	85
	Availability	85
	Suggested Reading	86
IX.	MULTIPLE-COPY REPRODUCTION	87
	Photostats	87
	Microfilm	88
	Obtaining Photocopies	90
	Providing Photocopies in the Small Library	91
	Suggested Reading	93
BIBLIOGRAPHY		94

TECHNICAL LIBRARIES IN COOPERATIVE PROGRAMS

INTRODUCTION

The purpose of this handbook is to present practical suggestions on how to organize and operate a technical library so that it provides active and effective support to the objectives and activities of the industry programs carried forward cooperatively by the International Cooperation Administration (ICA) and host governments in other lands.

The keynote of the handbook is that full and effective use of the wide range of technical information materials and services available to the cooperative industry programs can and should play a major part toward achieving the basic aim of these programs: the improvement of the standard of living of the country concerned through broad-scale economic and industrial development.

The handbook is intended primarily for the use of library personnel who have not had professional library training. Hence the methods described are very simple and are outlined step-by-step. The form in which the material is presented allows for the omission of a step whenever the library has not reached the stage of development requiring it. At the same time, the procedures and routines indicated are in accordance with generally accepted professional practices, so that as the library develops, none of the work will have to be redone, although it may be amplified. To assist this process, suggested further readings are given at the end of each chapter.

It is important to note that, once the basic concept of active and effective library service is understood and implemented, there are acceptable variations to many of the technical procedures outlined. No library should change practices which are working well unless the suggestions given in the handbook would improve materially the efficiency of the library operation. Hence, before a decision to alter procedures is taken, the technical information officer or other administrative official supervising the library should be consulted.

It should be added that although this handbook is intended chiefly for present and prospective library personnel, it is hoped that it will be found useful also by ICA technical information specialists, host-country leaders in business and industry, government officials, and others with interest in and responsibility for the provision of effective technical information services.

CHAPTER I

AIMS AND FUNCTIONS OF A TECHNICAL LIBRARY

The task of the library in a cooperative industry program is to assemble, organize, and disseminate relevant technical information and materials. The technical library is an important means of helping to achieve the basic goal of the program: the improvement of the standard of living through economic and industrial development.

The effective library is a well-used library. Its books and other materials are utilized fully and effectively. Its job is not merely to receive and catalog materials and issue them on request. By working in close liaison with all other sections and projects of the industry program, the proper role of the library is to function actively as a dynamic clearinghouse of technical information. Its aim is to ensure that the important ideas of many countries, contained in the books, exhibits, and other printed and audio-visual materials available through the ICA cooperative industry program, become widely distributed. This information should be made accessible to government officials, leaders in business and industry, labor groups, university staff and students, and all others engaged or interested in the complex process of economic and industrial development in the host country.

Books and other materials are not lifeless objects to be stored away for safekeeping. They constitute an important channel for the dissemination of modern technical skills and knowledge. They are working tools, just as are the machines in the factory, which can help to do the important job of building a strong and soundly based economy.

Therefore the basic functions of the library in a cooperative industry program are as follows:

1. Provide technical information, materials, and services which would otherwise not be available to the host country.

2. Complement, support, and strengthen all phases of the cooperative industry program in the host country, through the provision of needed information and materials.

In order for the library unit to perform its work effectively as one member of a team of related services, it is essential for the librarian to understand clearly the basic objectives of the cooperative industry program. The librarian must also be aware of the major activities undertaken to reach these objectives.

Objectives of the ICA Cooperative Industry Program

The basic objective of the International Cooperation Administration (ICA) technical cooperation program in the field of industry is to create an economic atmosphere in which each participating country can continue to increase its economic strength and improve the standard of living of its people, thereby developing the strong industrial foundation which is vital in a sound modern economy.

It is equally the objective of ICA and of the host governments that every participating country shall develop, as early as is practicable, a foundation upon which that country can transact solely with its own efforts and resources, the task it has initiated jointly with the United States

Most countries will find it essential to establish a strong independent or quasi-independent organization to serve as a focal point to spearhead and coordinate continuing efforts. This organization will provide a channel for the flow of technical materials and information from other countries.

In the more industrially advanced countries, the emphasis of the cooperative industry program has usually been on efforts to increase industrial productivity. The organizations established in these countries are often known as "Productivity Centers." In some lands they have been called "Services" or "Productivity Councils." In most of the less-industrialized countries, however, the need is for the building or expansion of the industrial community; hence the focal body established is commonly called an Industrial Institute or Industrial Development Center.

The technical library is typically established as an integral part of the country's coordinating body, and its role is to function as a service unit within the administrative whole of which it is a part. The organization charts in this chapter indicate the possible structure and

relationships for a small (or beginning) and a larger (or more mature) "technical information center." (See Figures 1 and 2.) It is not intended that a particular center would follow exactly the suggested structure. This may not be practical in many lands. Nevertheless, certain basic facts and interrelationships of services are presented which have been proved by experience to be effective.

Small (or Beginning) Technical Information Center

This organization divides the technical aids services composite into three basic sections:

1. Publications
2. Implementations
3. Visual Materials

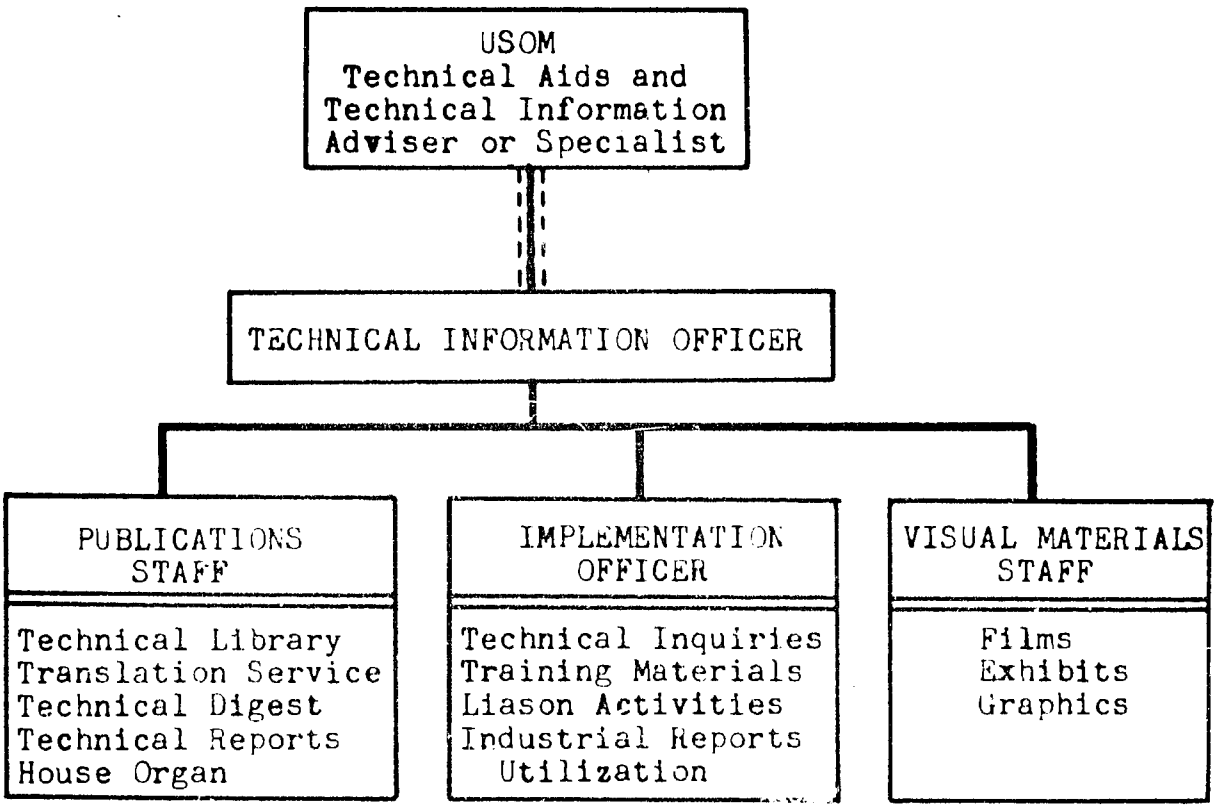


Figure 1. Organization Chart--Small Technical Information Center

The Publications Section in this structure would be responsible for handling the production and dissemination of all periodical and one-time publications of the Institute or Productivity Center. It would also be responsible for the development, maintenance, and effective utilization of the technical library.

This section would adapt, translate, and select materials to be embodied in the Center's version of the Technical Digest. It would assemble materials for and produce the periodic publications (of the "house organ" type) that the Center prepares for general distribution to area industries. The Center staff would draw not only upon technical digests, industrial reports, and answers to technical inquiries, but could also utilize pertinent publications and material prepared locally and collected from industry programs in other lands. The staff publications could reflect successful current accomplishments of joint projects of the industry program.

The Publications Section could also provide central translation or adaptation service for the Productivity Center's work, utilizing either full-time staff, contract services, or a combination of these. The staff would also be responsible for the production of such adapted versions of technical or special industrial reports as would be required for the total program.

The Visual Materials Section would be responsible for the development and maintenance of a film library. It would conduct such regular or occasional film showings as are needed for all projects in the local industry program by utilizing loan films and other films available locally.

In addition, this section would be responsible for conducting the industrial exhibits program, based on ICA/Washington-prepared loan exhibits and such locally prepared pertinent exhibits as may be required. This section should also produce graphics (charts, pictures, diagrams, flannel-board presentations, etc.) as program needs may dictate. It should also be responsible for the provision of visual materials required by the Publications Section in its work.

The Implementation Section would play a key role in successful program operations. It would include personnel to handle the technical inquiry service. It would be responsible for arrangements to utilize training guides and related materials in local technical training courses of the Institute or Center. Actual training staff and training operations could be included in this section, or the staff of this section could provide services for or work with other project personnel conducting specialized training programs.

Similarly, the Implementation Section could be responsible for making sure that all industrial reports are placed in the hands of appropriate technical

personnel of the organization with essential suggestions for the utilization of materials embodied in the reports. Copies of reports should be provided for the use of individual clients of the Institute or Center.

Finally, this section should have the basic responsibility for active and continuing liaison with staff persons of all other sections and projects of the industry program. By means of this liaison, industry program staff could be sure that: (1) pertinent materials or services are provided on a current basis wherever they could serve a basic program need; (2) local industry program needs are accurately and promptly translated into requests for the preparation of materials and provision of required support service, either by the local organization or by ICA/Washington, as appropriate; and (3) all staff members are currently informed as to materials and services available.

Larger (or More Mature) Technical Information Center

In general, the functions outlined as appropriate in the smaller Technical Information Center apply also to those noted as effective for a larger or more mature center. The primary difference in structural concept is a more extensive subdivision of responsibilities. These differences are essential to the proper administration and conduct of a larger and more complex technical information program.

Specifically, in the larger structure, the technical inquiry service is assigned to a separate staff. It is not included in the Implementation Section as in the smaller center.

The technical library is not a division of the Publications Section, but is tied to a new unit, the Receptionist Center. This concept is based on the assumption that in a larger and more complex organization, all visitors should be referred to a central "screening" contact where a well-informed and qualified staff could accurately determine the visitors' needs. In many instances a visit to the library (adjacent to the reception center in this organization) would complete the service inquiry satisfactorily. In other instances, the visitor might be routed to the Technical Inquiry Section, to the Visual Materials Services staff, Publications staff, or to the Implementation officer, as appears most appropriate.

The necessity for identifiable subsections is foreseen for the Program Publications and Visual Materials Services staffs, as noted in the chart. Such subdivision and assignment of specific responsibilities in the larger Center should help to achieve effective administration and a more complete utilization of specialized skills.

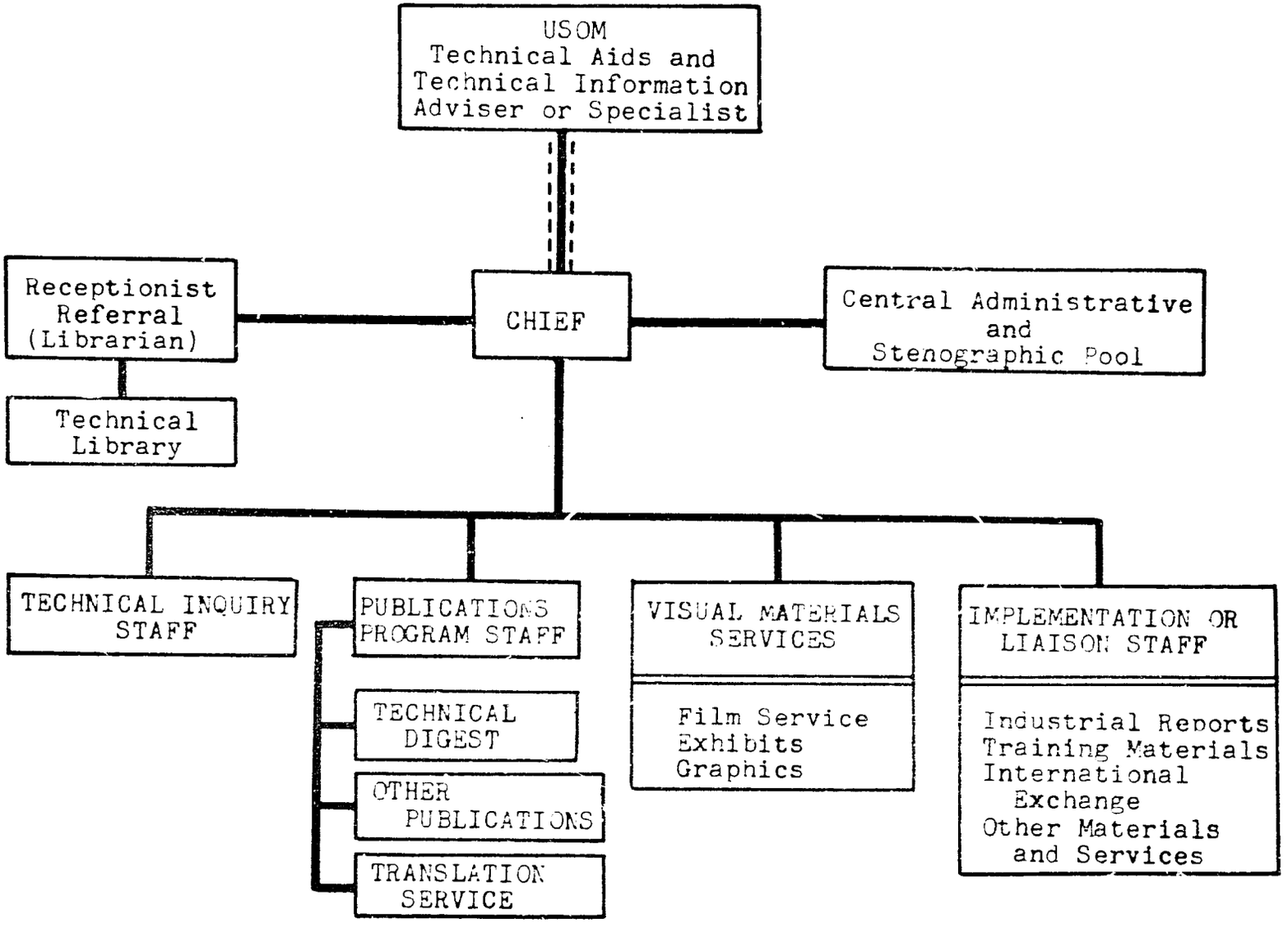


Figure 2. Organization Chart--Larger Technical Information Center

Primary Elements of the Cooperative Industry Program

Let us examine the functional elements of the cooperative industry program in action. The foundation of the Industrial Program of the ICA is current technical training and the exchange of technical and managerial concepts and know-how. The particular pattern this development must take in each nation, however, can only be determined by the people of that country. That pattern, in turn, is firmly grounded in each state's own cultural heritage. Therefore, as basic policy, ICA provides cooperation only for those programs and projects specifically requested by the host government.

Economic aid, in the form of loans and grants, cooperation in the procurement of industrial commodities from the United States and other sources, as well as cooperation in the successful construction and initial operation of basic industrial plants and other capital projects, is sometimes provided. However, this aid is provided only to the extent essential to the achievement of cooperative program objectives.

The three primary elements of industrial technical cooperation involve (1) specialized training of and observation by host-country nationals in the United States; (2) the provision, by United States technicians working in the host country, of specialized technical training, advice, and demonstration; and (3) the transmission of technical know-how through the printed word and the use of audio-visual devices.

For further details concerning each of these three major program elements, library personnel should study carefully the suggested readings given at the end of this chapter. In addition, it would be advisable to inquire of the relevant officers in the local ICA Mission to find out if there are essential information materials which relate to the particular cooperative industry program being carried out in the country where the library is operating.

Meanwhile, since the work of the library is concerned most closely with the third major phase of the cooperative industry program outlined above, this aspect of the program warrants further attention.

ICA Industrial Technical Aids Services

A complete workshop of communication tools is needed to speed the exchange of technical information. Hence the technical aids program includes a variety of basic and continuing services, which are provided in the following forms:

1. Technical Inquiry Service. Provides answers to specific questions from countries participating in the ICA cooperative industry program relating to products, processes, machinery and equipment, production operations, work techniques, management practices and concepts, factory engineering, and other basic requirements for industrial production. Inquiries are forwarded to the United States for reply, after endorsement by appropriate U. S. Operations Missions. Except for a few specialized inquiries, this service is implemented by the U. S. Department of Commerce, Office of Technical Services.

2. Technical Digest. Provides digests and abstracts of current U. S. developments in products, processes, and work techniques derived from current U. S. technical, scientific, and trade periodicals.

3. Industrial Reports Service. Provides basic information regarding: (a) Requirements for establishing and operating small factories in basic industries; (b) Man-hour requirements, operational characteristics, and equipment utilization in representative U. S. factories in selected industries; (c) Man-hour and materials savings through standardization, simplification, and specialized studies; and (d) U. S. experience in specialized fields.

4. Training Materials Service. Provides basic materials for use by specialized technicians in the conduct of management and supervisory and related training courses in host countries. These materials include course outlines and leaders' guides.

5. Technical Literature Service. Facilitates procurement of U. S. technical publications for use in countries participating in the International Cooperation Administration information exchange program. Provides recommendations and guidance regarding currently useful world-wide publications relating to industry and productivity improvement.

6. U. S. Book Exchange Service. Provides, on Mission approval, technical and scientific books and periodicals on exchange basis to overseas member libraries.

7. Overseas Industry Materials. Obtained through international exchange of technical information between productivity centers and similar organizations.

8. Other Specialized Technical Information. Working manuals (such as brochures, pamphlets, and leaflets) as technical reference materials for investment specialists and industry officers.

9. Technical Film Service. Provides guidance for and facilitates procurement of U. S. technical and training films for program use. Provides representative U. S. technical industrial films and filmstrips on a loan basis for short-term program requirements. Facilitates adaptation of films into foreign language versions for program use as necessary.

10. Technical Exhibit Service. Provides or procures illustrative materials for demonstration of U. S. processes, techniques, and equipment. Provides leadership and service in the preparation and use of technical exhibits as a medium for exchange of technical know-how.

Specific Functions of the Library

Now that an over-all view of the wide range of technical information aids and services available through the cooperative industry program has been obtained, let us turn our attention to the specific functions of the library in the local situation.

The technical library in a particualr center should satisfy the particular needs of the total program of which it is a part. The specific services which it is expected to perform will naturally depend on the size, conceptual framework, and over-all organization of the local program.

It may be useful to indicate the functions performed by technical information libraries already in operation in various cooperative industry programs, to indicate the range and kinds of services that a local program might wish to obtain from its own library. All libraries will necessarily perform some of these functions. Some might perform more. Many will begin with only a few and gradually develop as the demands of the particular program require. These functions are:

1. Procurement. Select, order, and receive a wide variety of informational materials. (Books, pamphlets, government publications, periodicals, technical and special reports and digests, trade catalogs, films, exhibits, and other materials.)

2. Arrangement. Arrange materials in a logical manner on shelves and in files so that they can be quickly and easily found.

3. Classification. Classify and catalogue these materials as simply as is consistent with effective use. It must be possible to determine from the records exactly what materials the library possesses on a given subject, regardless of the form of the material.

4. Identification. Locate specific items, or materials on a particular subject requested by technical staff or by visitors. The next step beyond this is to maintain an informed awareness of program developments and anticipate demands for needed materials.

5. Record Keeping. Keep accurate records of all materials provided on loan.

6. Distribution. Distribute, on a well-planned basis, copies of books and other materials provided for this purpose by ICA. Maintain appropriate, detailed records of the distribution, to serve as a guide for future planning.

7. Translation. Translate (or obtain translations of) documents and other materials as required by users of the technical library.

8. Reproduction. Prepare photocopies or other reproductions of materials required.

9. Referral. Transmit (or assist in transmitting) important requests for information which cannot be answered locally to the Technical Inquiry Service, ICA/Washington, and ascertain that the reply is conveyed in effective form to the inquirer, including the provision of translation, if necessary.

10. Advisement. Assist in making the library's materials and services known and understood in the host country. This can be accomplished by compiling and distributing appropriate lists and annotations of new materials received in the library, preparing special subject bibliographies, making abstracts of journal articles or sections of books of particular interest, writing news items, helping to write

and edit the Center's monthly or quarterly bulletin (or assisting the ICA Mission technical specialists with these tasks in various ways).

11. Inter-Library Loan. Borrow books, journals, and other materials needed for program purposes. Secure microfilms, photostats, or other reproductions of such materials whenever the original items cannot be borrowed.

12. Clearinghouse. The local library must be an active clearinghouse for the international exchange of technical information and materials with other countries engaged in programs aimed to achieve economic development and industrial productivity.

Suggested Reading

These materials are available, free of charge, from the Technical Aids Branch, International Cooperation Administration, Washington 25, D.C.

Communication: Accelerator of Economic Development, 12 pp.

Industrial Program of the International Cooperation Administration, 28 pp.

Industrial Technical Aids Services, 35 pp. (A general description of the services.)

Technical Inquiry Service, 17 pp.

Technical Literature Service, 38 pp.

Training Materials Service, 16 pp.

U. S. Book Exchange Service, 33 pp.

CHAPTER II

LIBRARY PERSONNEL

An effective technical library must have an efficient staff. The library's collection of materials may be excellent, but unless the staff knows how to get the materials into use, the library could be compared to an automobile without a driver.

Staff Requirements

Basic Staff Needs. The most useful way to gain an understanding of the duties and qualifications of the library staff is to consider the specific functions which the technical library is expected to perform. As indicated in the preceding chapter, these functions vary considerably. The variables are related to the size and maturity of the total industry program. Nevertheless, certain basic staff requirements can be identified and described in terms of the actual work to be done.

The fundamental task of the technical library in every industry program is to select, organize, and provide needed technical material and information upon demand. The library is usually expected to help operate an extensive technical information service. This includes the announcement and wide distribution of available materials, loans, the coordination of mail inquiries, and the preparation of publications and translations.

Let us examine the specific tasks of the technical library staff.

Directing the Library. A well-qualified person must be in charge of the library as its chief administrator. His task, in cooperation with other senior officers in the total industry program, is one of framing the basic policy of the library. This basic policy must be carried out. The chief administrator must suggest and implement further services as the program matures. It is his task to select appropriate staff persons and to arrange for their training and indoctrination. He must plan and supervise the library's work and write any administrative reports which may be required.

This chief administrative officer should be either a senior information officer in the over-all industry program, or a fully trained professional librarian with experience, skill, and knowledge in technical information work. Above all, he should have the ability to organize a program, and a "user" attitude toward the materials and services provided by the library. Only provision for effective leadership at the senior administrative level will insure efficiency.

Duties and Responsibilities

Selecting, Organizing, and Servicing Materials. These tasks are essentially technical and professional in nature. They involve the selection and procurement of books, periodicals, and a wide range of other materials. These materials must be catalogued, classified, and indexed, and information abstracted from them in order for it to be quickly and easily accessible. Inquiries must be answered. Bibliographies must be prepared. Translations and editorial work must be completed. Loan records and statistics must be kept. And publications must be distributed. (See Figure 3.)

Figure 3. Cataloguing and Classifying Incoming Materials

The minimum qualifications for such personnel include secondary school graduation and the ability to read, write, and speak fluently in English and in the language(s) of the host country. Above-average intelligence, accuracy, a pleasant and well-balanced personality, and a genuine desire

to be of service are essential. College training is highly desirable. Professional library training should be regarded as important, particularly in cataloguing and classification. Every effort should be made to obtain such training as soon as possible.

Clerical and Routine Work. These tasks include check-in of periodicals and new publications, typing of letters and catalogue cards, and return of materials to the shelves and files after they have been used. Other duties often include the maintenance of loan records and statistics, making simple book repairs, and some messenger service.

Personnel qualifications for these tasks include secondary school graduation or its equivalent, a good working knowledge of English and the language(s) of the host country, and the ability to use a typewriter quickly and accurately.

Size of the Staff. In a small or beginning cooperative industry program the library staff usually consists of only one full-time library worker. This worker usually has not had professional training. Even under these circumstances it is possible for the library to render useful and effective service if certain safeguards are taken. First, it is vital to select a librarian who is alert, highly intelligent, imaginative, and interested. He should then work under the supervision of a senior technical information officer. Such a librarian must understand clearly the active nature of the job he is expected to do and the relation his job has to the total industry program. The selection of books and other materials should be made chiefly from ICA and other recognized and approved lists. This work should be done under the supervision of the senior technical information officer. It is usually advisable to postpone the cataloguing of the library materials--a highly specialized task--until the librarian has had some professional training. The more complex inquiries of visitors should be handled either by technical information officers in the overseas mission or referred by mail to the Technical Inquiry Service.

As the staff grows, the qualifications of the additional personnel should complement those of the existing staff. The growing staff must have a thorough knowledge of the subject and its literature, a knowledge of the necessary languages, professional library qualifications, and skills in translating, editing, indexing, and abstracting. It is very essential to include a competent clerk-typist as one of the first additions to the staff. Such a person can quickly take over the routine clerical tasks, thus giving the librarian additional time to concentrate on the location of information for visitors, the cataloguing and classifying of books and other materials, and the publicizing of the library collection.

On-the-Job Training. Librarianship at its best is a complex profession. It requires detailed knowledge of many kinds. Many countries, however,

have only a few trained librarians and may lack training facilities. The ideal solution to this problem is to provide training by means of overseas fellowships for at least a few of the potential library leaders. These trained persons can then conduct local courses to train other library workers.

In the meantime, much can be done by means of in-service training. Its importance must be appreciated. Mission officers should be asked to inform the librarian of major projects in hand and being planned. These officers can point out the types and kinds of information material requirements. The librarian should be encouraged to observe occasional sessions of industry training courses or seminars held at the Center. Thus, he can see how the materials are used and gradually acquire a "user" approach in his handling of materials.

In some situations there may be a well-established library with a professionally trained staff located in the same city or nearby. The librarian should visit such a library to discuss his problems with its professional staff and to study the methods and services of the operating library. (See Figure 4.) Such study and observation visits can be very

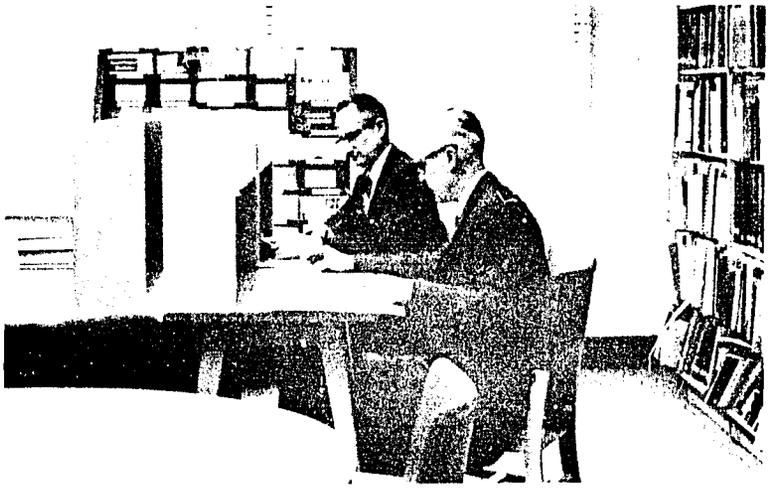


Figure 4. Library Workers Visit an Established Library for On-the-Job Training

helpful, because all well-functioning libraries have many common basic elements. Some libraries, particularly those operated by the U.S. Information Service, offer short, in-service training courses from time to time for any library workers in the area who wish to attend. Much can be learned by diligent reading and study of relevant professional library

literature. This should be done to the fullest extent possible. Suggestions for such reading are contained in the brief suggested-reading lists which appear at the end of various chapters in this manual.

The Role of the Trained Consultant

Although all educated persons are generally familiar with books, the actual organization of materials for an efficient information service is a very specialized task. This is particularly true during the time a library is becoming established. It is very desirable that someone with professional training and experience in technical library work be obtained as a consultant for two to four months, if at all possible.

The task of this consultant should be to get the library started properly. It will be necessary to obtain specific information as to what is expected of the library from its top management. Adequate library premises and equipment must be obtained. The consultant should begin to catalogue and classify the library collection and organize the vertical files. He should give on-the-job training to the local staff in the most effective way--by direct demonstration and supervision.

If it is not possible for one or more such consulting persons to be sent out on circuit to each library in the cooperative industry program, perhaps a demonstration pilot project could be held in a central location in one or more language areas. The librarians of the region could participate and engage actively in a workshop experience. This technique would place only the demonstration library in order, but each of the participating librarians could observe the processes and receive training in the procedures involved.

Suggested Reading

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib (4 Palace Gate, W.8), 1955, 387 pp. $8.00.

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th St.), 1951, 202 pp. $6.00.

Mews, Hazel. Books are Tools: The Organization of Small Technical Libraries for South African Industry, Pretoria, South African Council for Scientific and Industrial Research (P. O. Box 395), 1951, 28 pp. 1s.6d.

Mitchell, Alma C., A Brief for Corporation Libraries: A Guide for Their Operation and Management, New York, Special Libraries Association (31 East 10th St.), 1949, 59 pp. $0.50.

Vormelker, Rose, The Company Library: What It Is and Does, New York, The Journal of Industrial Training (330 West 42nd St.), 1951, 20 pp. Free.

CHAPTER III

LIBRARY FACILITIES AND EQUIPMENT

Careful attention should be given to providing adequate and attractive spaces for the technical library. The library should be conveniently located, functionally and efficiently planned, reasonably quiet, well lighted, comfortably furnished, and orderly and inviting in appearance.

In many industry programs, the library is a focal point for community contacts and the first stop for visitors. Hence the public relations aspect of the library is very important. At the same time, costs should be kept as low as possible, but consistent with effective operation.

Planning

Whether the library is large or small, good planning and careful housekeeping are necessary to assure these results. Let us consider the facilities and equipment in more detail.

Location. The library should have separate quarters. Street-level or second-floor premises are usually preferable to basement or upper-story locations. Adequate ventilation and reasonable quiet are essential. A wide room, with long stretches of unbroken wall space, increases book storage capacity and facilitates the functional arrangement of furniture and equipment.

The library should have only one entrance. Visitors can move into the library, use its information and reading room facilities, and then move out past a centrally located service and control desk. If the librarian is also the general office receptionist, entrance to the library should be through this office. The library should be locked when not in use.

Such measures enable the library to control and safeguard its materials with a minimum staff. This also makes it possible for library materials to be displayed on open shelves in interesting ways without fear of undue loss. The use of locked bookcases becomes as unnecessary as it is undesirable.

Experience indicated that most technical libraries soon outgrow their original quarters. It is wise to plan in terms of convenient future expansion from the outset. Hence a location between staircases or a location with other awkward architectural features should be avoided.

Size and Arrangement. The library should be large enough to provide reasonable space for three functional areas: (1) circulation and reading room space, (2) a workroom and a librarian's office, and (3) storage space.

Ideally, these spaces should be adjacent to and accessible to each other. In a small library the division of space by functions can often be achieved satisfactorily by the strategic placement of low (counter-height) or tall book shelf units. In some situations, inexpensive temporary partitions may be desirable.

Reading room space requirements are for approximately 25 square feet per reader. A well-arranged reading room 22 feet long and 25 feet wide can seat about 20 readers comfortably. The workroom-office space should not be smaller than 12 feet by 12 feet. This area will allow room to process and repair books, house a typewriter, a telephone, and a supply cabinet. The storage room may be combined with the workroom-office in a small library, but as the library grows additional storage space may be needed to accommodate bulk materials intended for distribution and seldom-used books and journals.

Some arrangements of space are economical; others are very wasteful. Some functional layouts for small libraries are shown in Figures 5,6,7, and 8. These illustrations should be studied carefully.

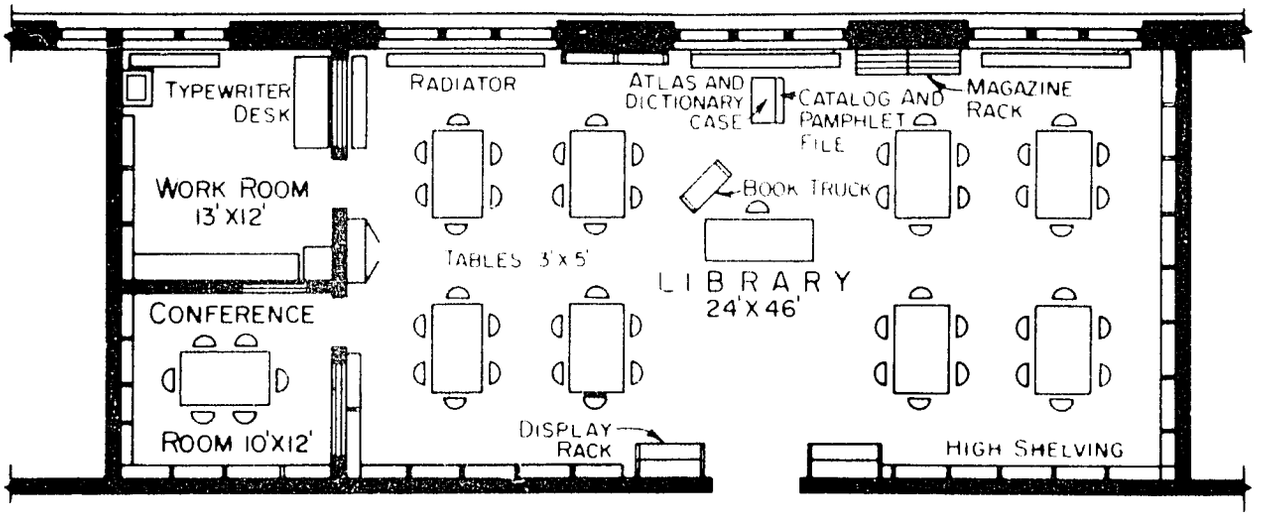


Figure 5. Small Library Floor Plan

The particular physical features of each library must be carefully planned. The essential considerations are to provide comfortable seating at standard-height tables. The maximum use of unbroken wall space for book shelves and vertical files, a librarian's service desk placed to assure effective supervision, and as much workroom and

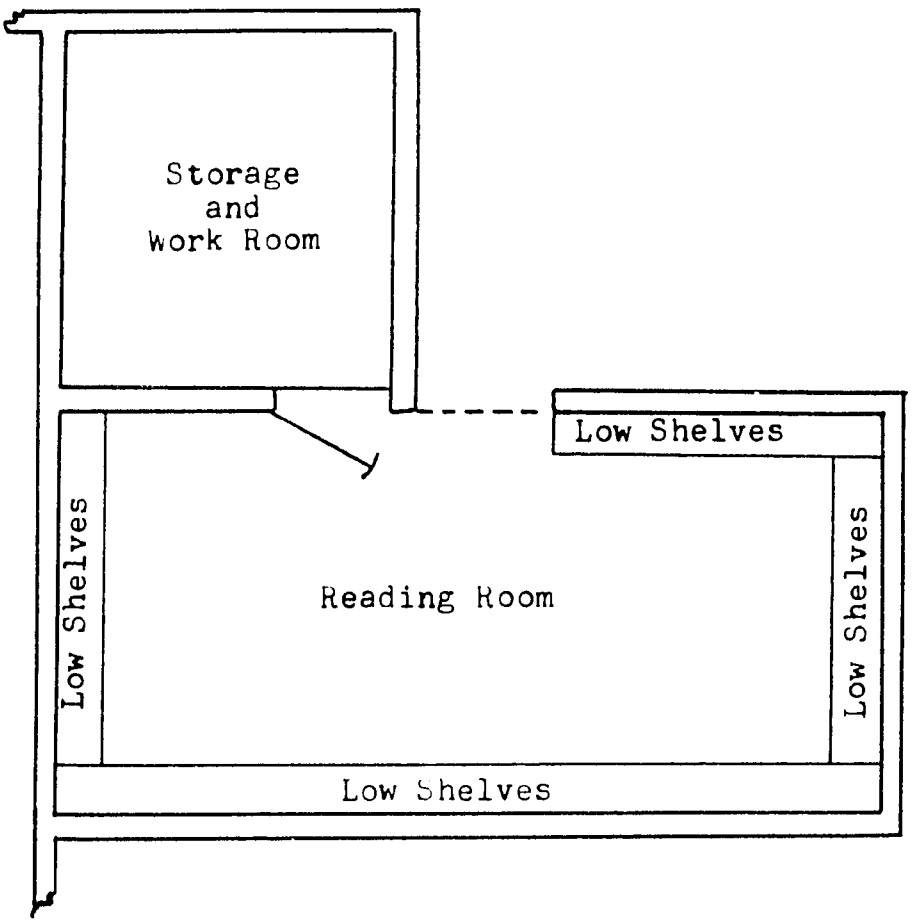


Figure 6. Small Library Floor Plan

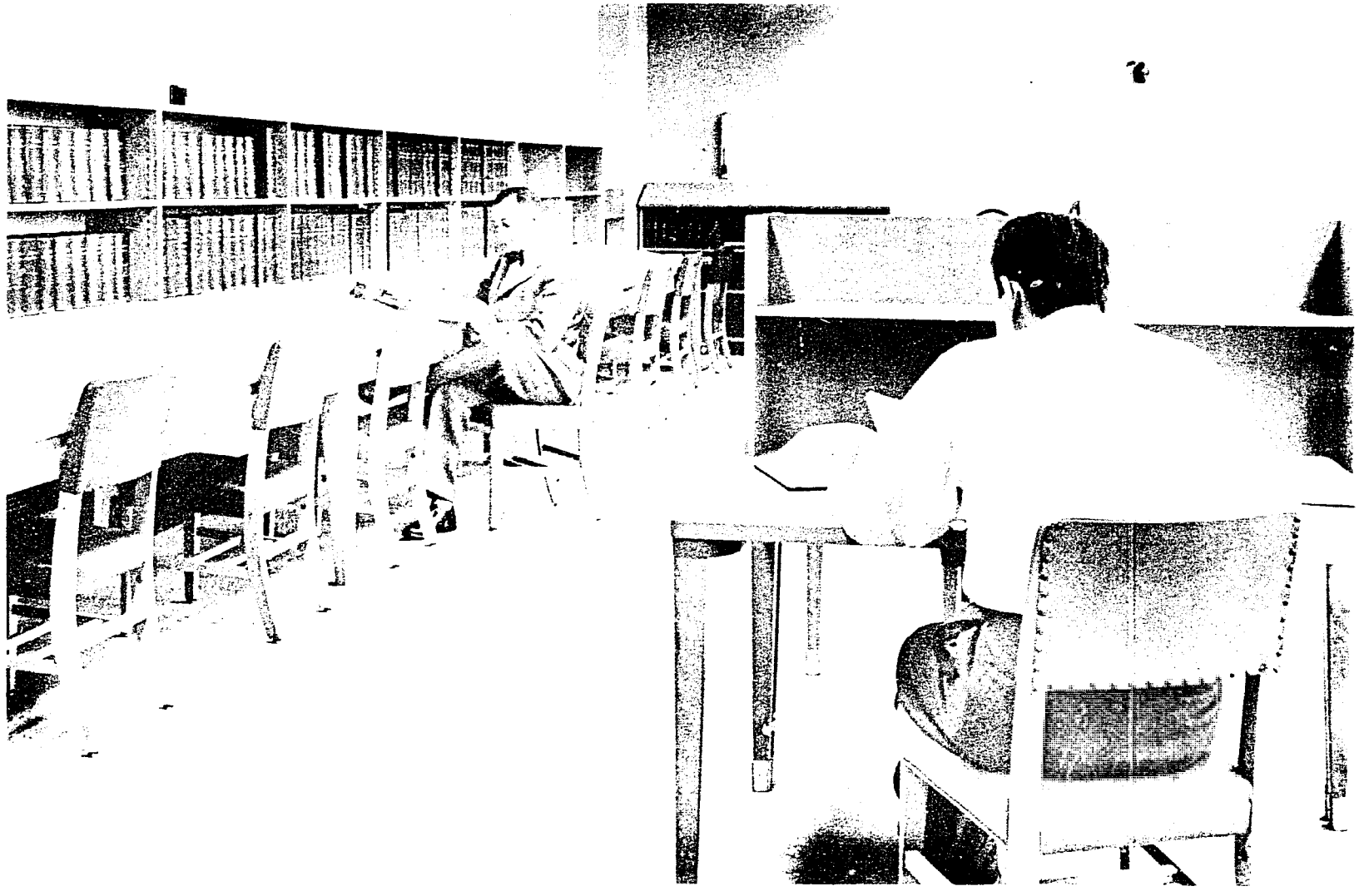


Figure 7. Small Library Reading Room. Courtesy Sperry Rand Corp., New York

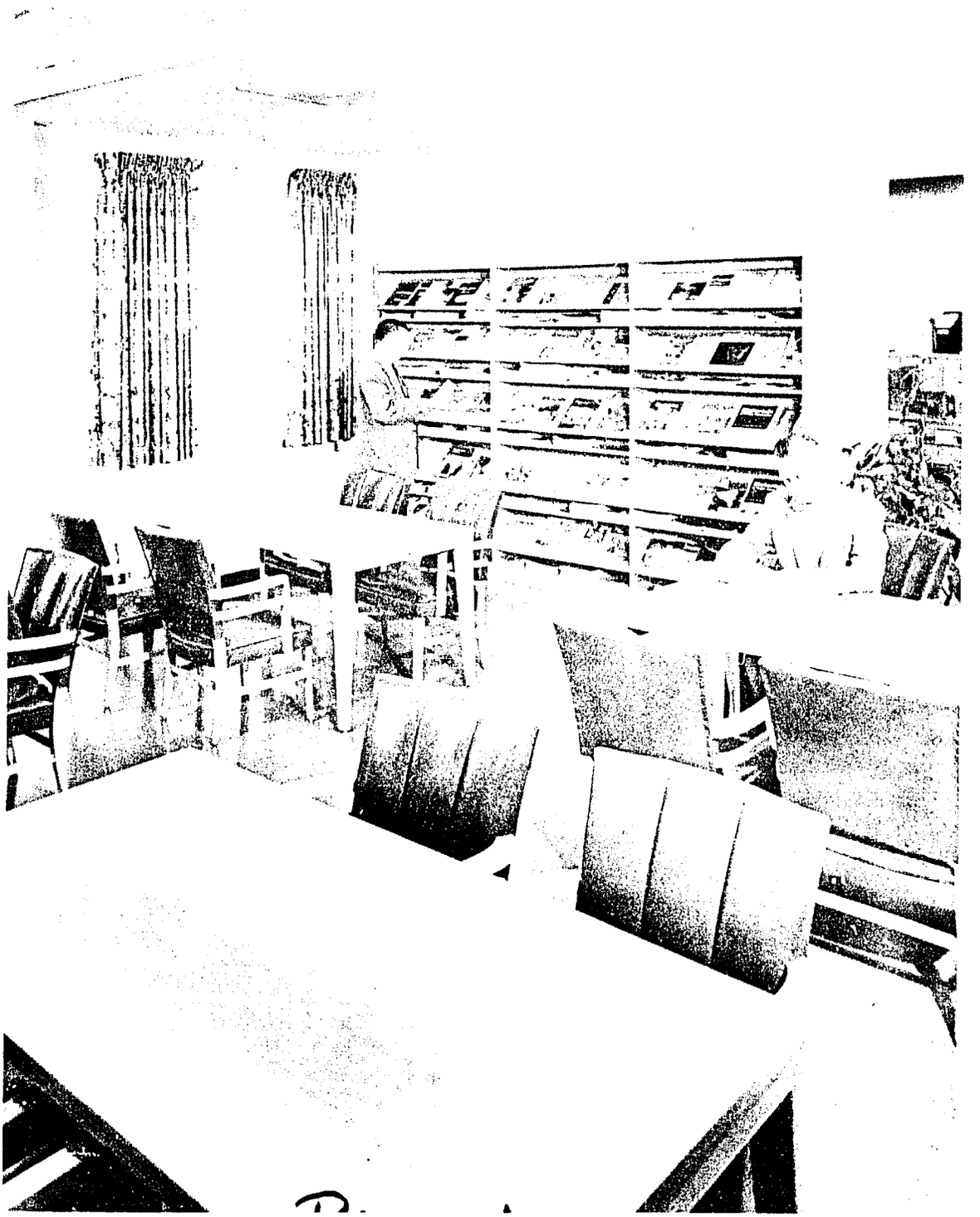


Figure 8. Small Library Reading Room. Courtesy Sperry Rand Corp., New York

storage space as possible. The use of a few round tables, interspe with rectangular tables, will add interest and increase the flexibi of arrangement. At least one bulletin board should be provided for exhibits and displays. A sheet of celotex or other porous fiber board tacked neatly over an unused library door or window could serve this purpose very well. (See Figure 9.)

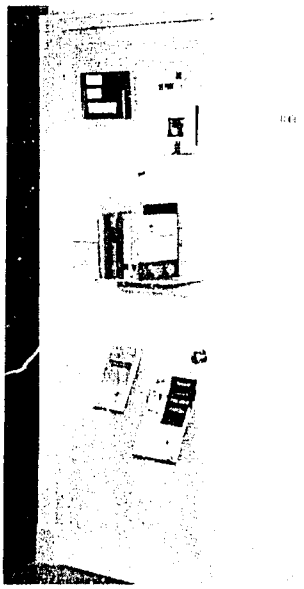


Figure 9. Library Materials on Display. DuPont Technical Library, Wilmington, Delaware

Simplicity in furnishings and color scheme is essential. Thus, a serene and pleasant atmosphere is created. Ceilings should be painted a flat white to obtain maximum light reflection. Walls should be painted in soft, pastel colors. Adequate electric lighting should be provided. Ceiling lighting fixtures which have fluorescent tubes give excellent illumination. Fluorescent fixtures cost more to install than incandescent bulb fixtures; they use less current and require less frequent replacement than bulbs. Table lamps are space-consuming and expensive.

Furniture and Equipment. Library furnishings should conform fully to standard library specifications when circumstances permit. Years of experience have gone into their design. Standard furnishings can be added, unit by unit, as the library expands. Such furnishings provide for flexible and attractive arrangements.

A standard library book shelf unit is 7 feet 6 inches high and 3 feet wide. Shelves may be on one or both sides. The shelves should be made of steel, or of wood strong enough to avoid sagging and warping. Shelves should be a full 9 inches deep and adjustable vertically to accommodate books of various heights. Most books require 10 inches of open space between shelves. Many reference books and many technical books are oversize in height. Low shelf units are often placed beneath windows and bulletin boards. Standard counter-height shelving (34 inches high) is often useful for some locations in the library. Shelving with small compartments is often used for periodicals. A counter-height, sloping shelf top may be used to display current issues.

Rectangular tables should be 3 feet wide and 8 feet long to provide seating for four to six adults. Tables of this size should be used in rooms which are 24 feet or more in width. Larger tables do not allow adequate aisle space arrangement. Round tables should be 4 feet in diameter. All tables for adults should be 30 inches high, with four sturdy legs and without drawers.

A card catalog cabinet, such as is shown in Figure 10, should be purchased from an established library supply house. Such standard cabinets have all essential features such as self-locking metal rods card guides. The standard catalog card is 3 by 5 inches. A standard catalog cabinet drawer will hold approximately 1000 cards.

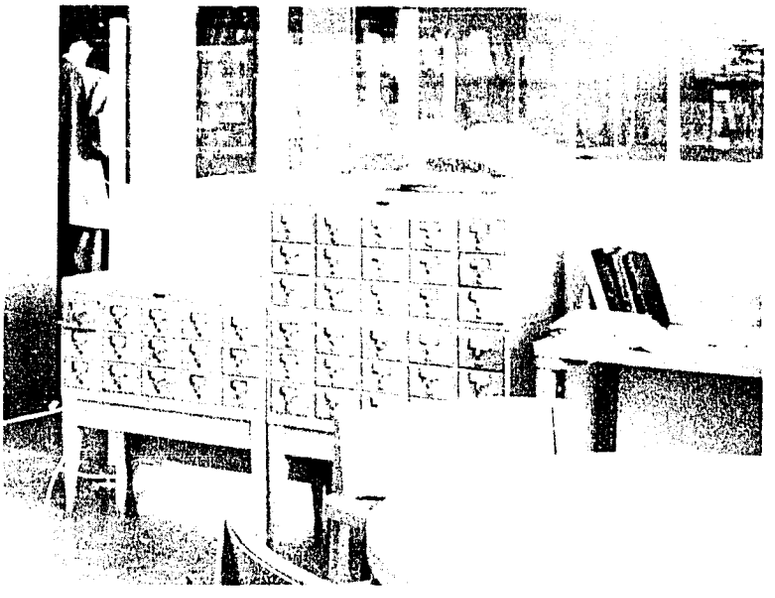


Figure 10. A Library Card Catalog Cabinet. General Electric's Silicone Products Department Library, Waterford, New York

A legal size vertical file with four drawers is necessary for storing unbound reports, pamphlets and photographs. More than one such unit may be required.

A simple flat-topped office desk is necessary for the book circulation librarian. It should have three or more drawers in which supplies and records can be kept.

A neatly lettered sign should be on the entrance door of the library, indicating the library hours. A typewriter (with elite type), a telephone, and a small three-shelf book truck should be obtained. A wall clock in the library is a convenience. Toilet and lavatory facilities should be near the library. A drinking fountain should also be nearby. Figures 11 through 16 show typical library furniture.

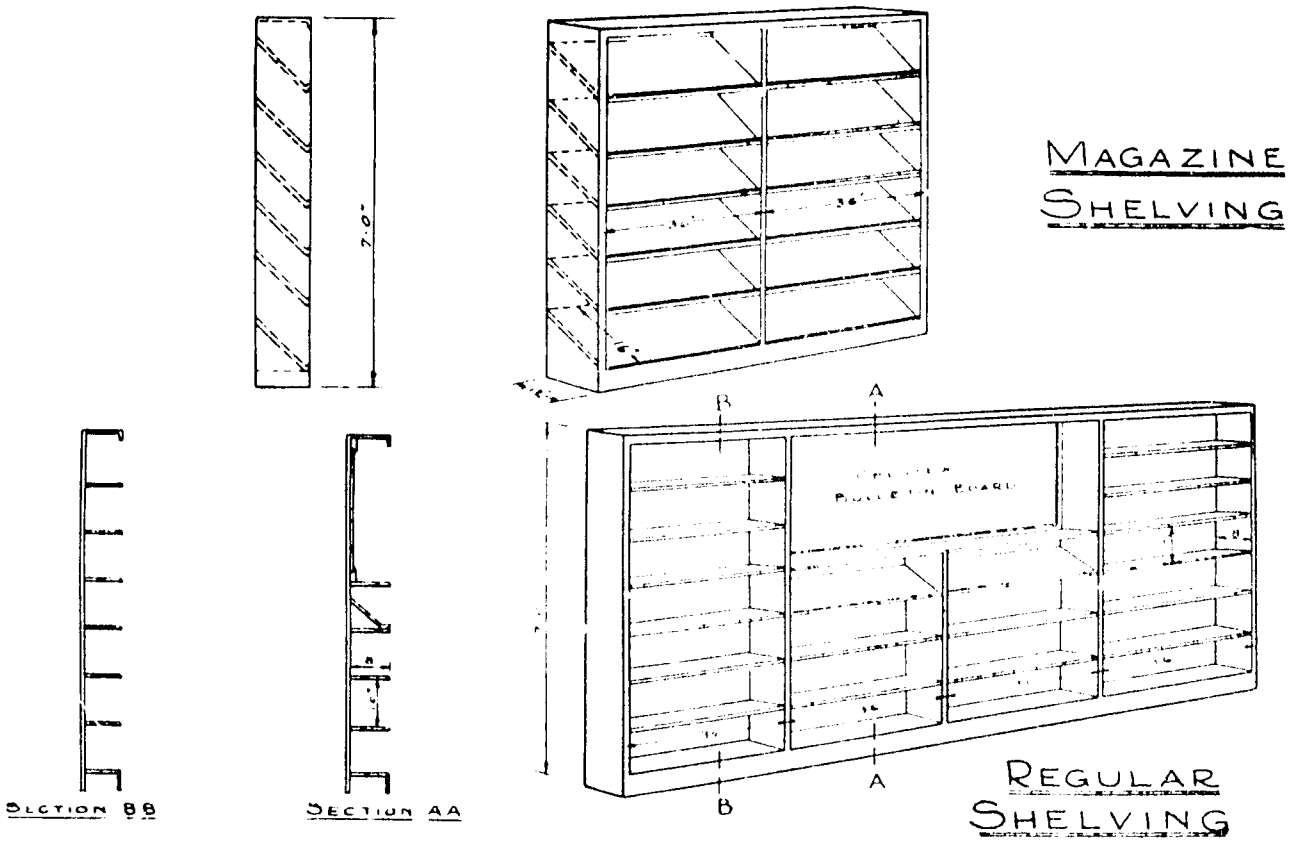


Figure 11. Shelving Details

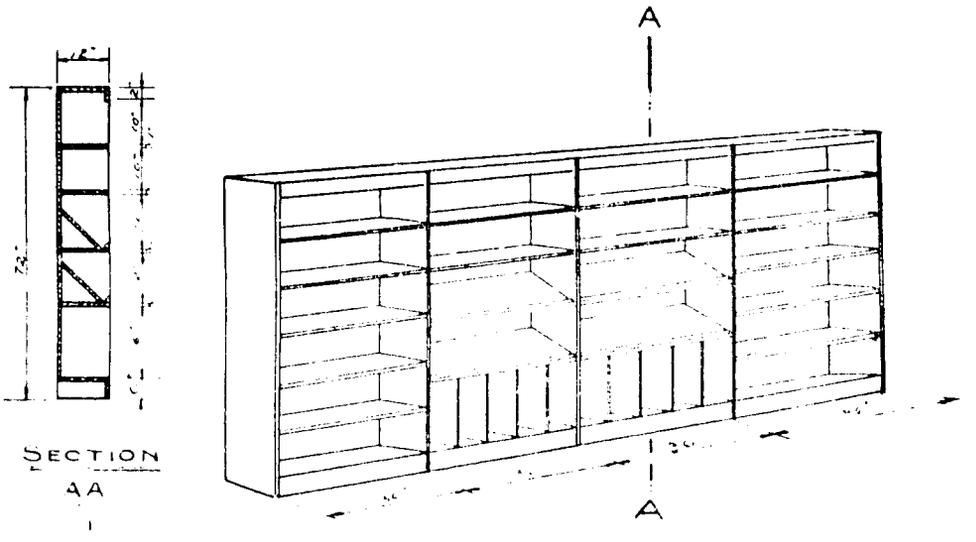


Figure 12. Picture Book Shelving

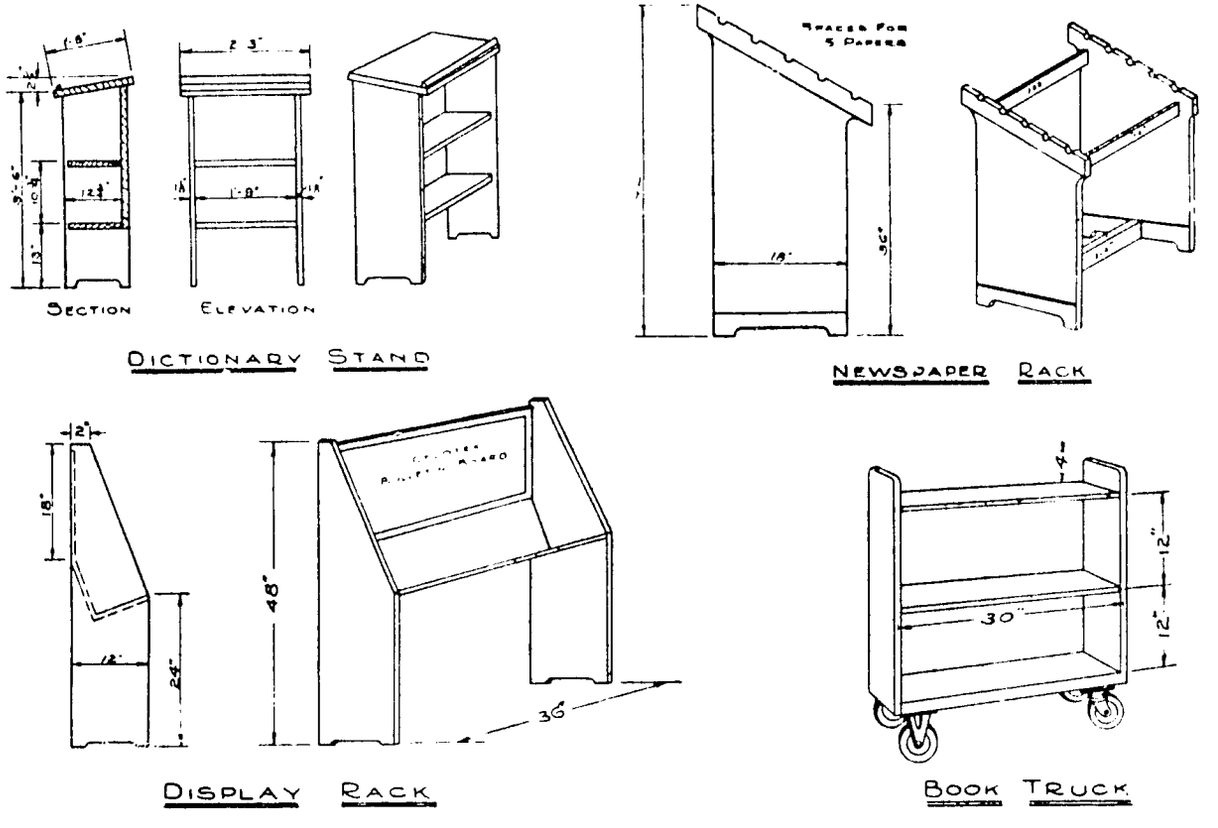


Figure 13. Special Library Fixtures

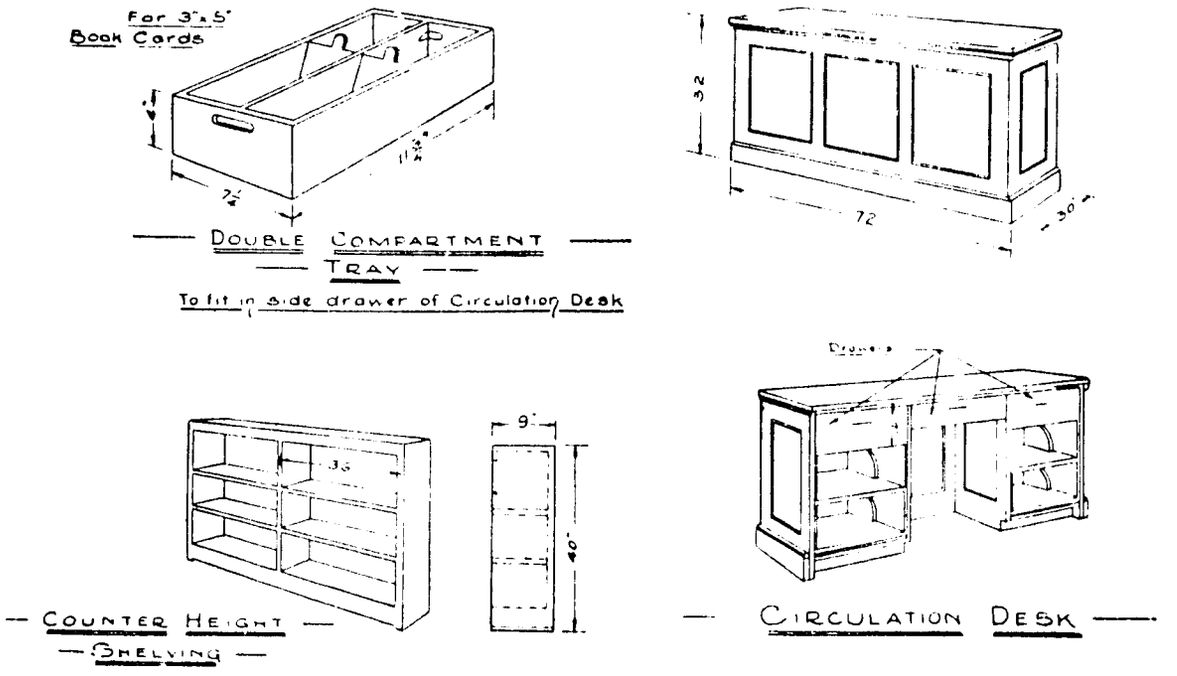


Figure 14. Desk and Counter Cabinetwork

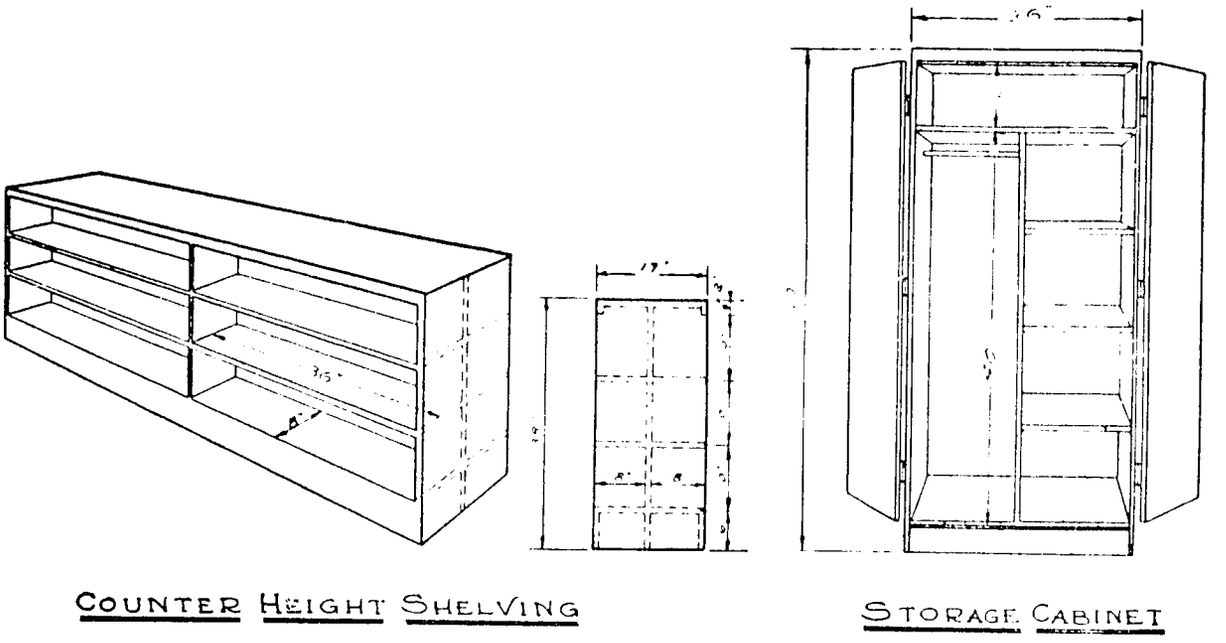


Figure 15. Double Shelving and Storage Cabinet

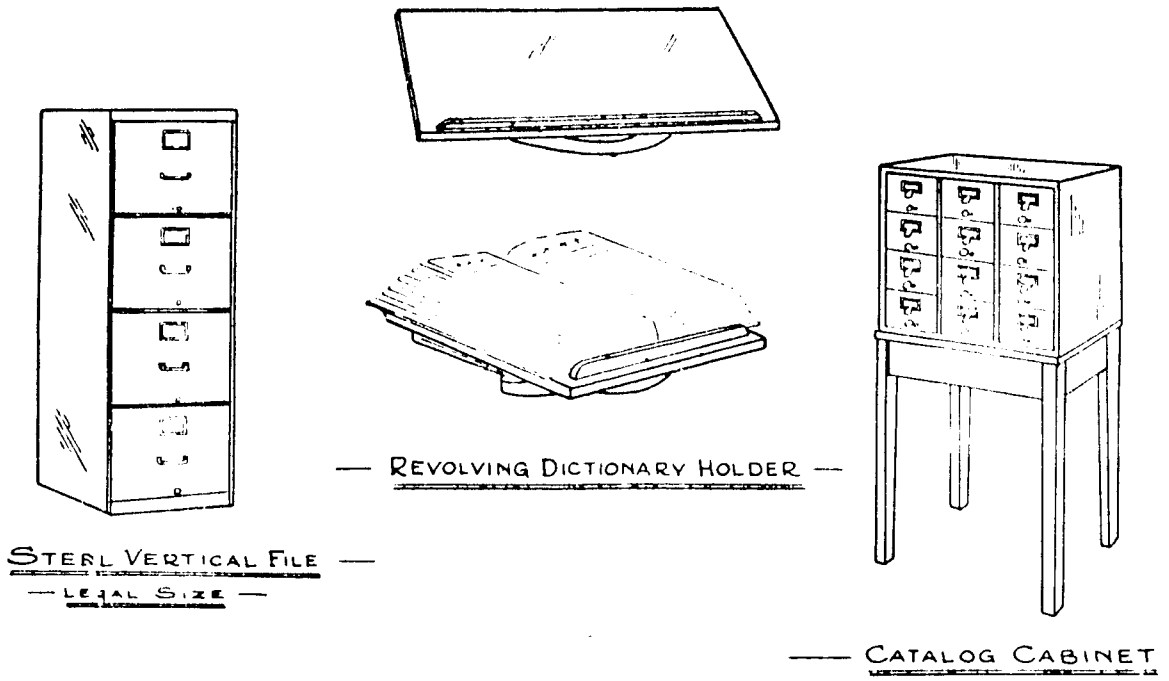


Figure 16. Special Furniture

Good Housekeeping

Every library can be clean, orderly and attractive. Good housekeeping is not achieved by sporadic, intensive house cleanings. It is a continuous process which demands careful daily cleaning and constant tidiness. Tile or linoleum floors should be washed frequently. Wooden floors should be swept each day and waxed or polished as often as necessary. Windows should be washed regularly.

Supplies should be stacked neatly in cupboards or drawers when not in use. Books and other materials should be returned promptly to shelves or to vertical files. They should not be allowed to gather in disorderly piles which are unsightly in appearance and time-consuming to search through when a particular item is needed. Books should be dusted regularly and evenly aligned with the edge of the shelves. Magazines and newspapers should be neatly arranged.

Fresh flowers or green plants add to a pleasant atmosphere. A well-arranged bulletin board exhibit should be changed every two or three weeks. It constitutes a useful program aid and adds a pleasant note of color and interest. One or two well-designed pieces of pottery or wood-carving, or sample products of local manufacture, make interesting display items. Books and magazines are quite decorative.

The basic rules of good housekeeping are good order and sparkling cleanliness. Add a bit of imagination and good taste, and the result will be an attractive, useful library. The esteem in which the technical library is held in the community depends upon many factors which directly affect its use and effectiveness.

Suggested Reading

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib, 1954. Chapter VII: "Library Planning," by J. B. Reed, pp. 1[illegible]-2[illegible]. $[illegible].

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association, 1951, 212 pp. $2.00.

Many ideas about library arrangement, equipment, and furniture can also be obtained free of charge from the catalogues and pamphlets issued by standard library suppliers, such as:

Gaylord Brothers, Syracuse, New York.
Library Bureau Division, Remington Rand, Inc., Buffalo, New York.
Ronec Ltd., 17 Southampton Row, London, W.C. 1.

CHAPTER IV

SELECTION AND ACQUISITION OF MATERIALS

Determining what literature to get and keep for the technical library requires a system. The first principle of this system is: Know the needs and resources of the country itself. The librarian should study the economic, scientific, and technological state of the country; find out what the principal industries are now and may be, potentially, in the future; what natural resources are available, and what the level of education is, especially technical education.

These facts determine what the users of the library's collection will want and need. Here are two hypothetical examples:

> Country A is an agricultural country in the tropics whose principal product is rice. Farms are small and owned by the farmer. There are numerous cottage industries producing mainly textiles and brass and silver utensils and ornaments, but no large scale manufacturing. Veins of gold and some precious and semi-precious stones were recently discovered. Forests, once extensive, are now disappearing. The general level of education is rather high, but there are few technical education opportunities. The government plans to improve the economy of the country by means of diversified agriculture, scientific forestry, and the exploitation of minerals. Technical training has already been started in these fields. Technical schools have also been started for business administration instruction.

The technical library for country A should have literature about all crops that can be produced in a tropical climate, especially rice, and on agriculture, forestry, handicrafts, and mining. Literature should be obtained for all the courses in the curricula of the technical schools.

> Country B was once highly industrialized, but it was devastated by a recent war. It manufactured automobiles, transportation equipment, cameras, lenses, electrical equipment, radios and television sets before the war. Power was supplied by coal from local mines, but even before the war

there were indications that the supply was running out. However, this country has rivers that could be harnessed for hydroelectric power. There are only a few market farms, and most food must be imported. The level of both general and technical education is high. The government is now anxious to restore prewar productivity in its prewar industries. There are enough remaining skilled workers and managers to restore productivity.

The technical library for country B should have literature on all of the prewar manufacturing industries and the construction industries. (It will be necessary to rebuild the factories as well as the new hydroelectric dams.) Literature is also needed on the supply and distribution of electric power, wholesale and retail trade, and importing and exporting.

The second important principle is: Know the technical subjects to be included in the collection. Whenever possible, the librarian should attend lectures or classes that deal with problems or conditions of concern to the technical library. For the most part, however, reliance must be placed upon the experts in the staff until the librarian becomes familiar with pertinent technical subjects. Obviously, in the case of a country with diversified industry, it will be impossible for one person to know all the details of operation of its industries. In the case of country B, suppose the librarian learned of a publication entitled "Waterproofing Dam Surfaces with Bitumen." Because he knows that the construction of a dam is about to begin, he knows that this publication may be useful. But only a construction expert familiar with dam construction problems would know whether bitumen would be a good waterproofing material for the kind of dam to be built and whether its use is economically feasible. Similarly, in the case of country A, only an agricultural expert knows whether or not a publication entitled "Farm Implements (Plow, Harrow and Cultivator)" might contain information about the kind of implements that could be used in its farming industry.

The third principle of selection is: Know the possible sources of literature. The librarian will be consulted by the library users about where materials may be obtained. Very few countries have national bibliographies and it is doubtful that any country has bibliographies that list all available material on all technical subjects. This is true of the United States, where many organizations prepare and publish bibliographies. It was only recently (1959) that a bill was introduced in the U.S. Congress to establish an interdepartmental reference service in the Library of Congress to provide coverage of miscellaneous documents not reported by existing organizations. Thus, the librarian must seek out the existing sources of published literature on the subjects his library should have and become aware of new sources as they come into existence.

After sources have been determined, all agencies and individuals that may have knowledge of material of interest to the technical library should be

contacted (see "Suggested Readings" for this chapter). One of these, of course, is the library association in the vicinity. The librarian should join the association, attend its meetings, and discuss his problems with professional librarians. These trained librarians are interested and eager to help. Another important resource is the national government. Its various agencies will have many available materials, most of them free or quite inexpensive, which can be obtained. The librarian should visit, telephone, or write such agencies at regular intervals to keep acquainted with what is currently available. The same thing is true of other sources of supply in foreign-government agencies, international agencies, and private industry. It is good to offer something in exchange for all material received. The best exchanges a technical library can offer are the free distribution publications described in Chapter VIII. (Sample form letters for the request of materials appear at the end of this chapter.)

In summary, the kinds of literature needed in a technical library are those covering the economic and technical fields of interest to the country and its industries. In addition, the library should have an unabridged dictionary, general and special encyclopedias, atlases, and should subscribe to at least one newspaper, generally the most prominent one in the country. Needless to say, the librarian must be constantly alert to keep his collection complete and up-to-date.

Sorting and Weeding

It is important to know what not to keep as well as what to add to a collection. Initially, there may be a great deal of material in the library that will not be needed. The good library is not one that has the most publications, but one that has the most used publications. Many extraneous materials not only take up space, which if not needed now will be later, but also make it more difficult to arrange, or find, the material users need.

If the material determined as not needed has been received from ICA, it should not be discarded without careful thought. For example, many publications will be received from ICA that do not apply to the country's industries but might be useful in other countries. Its return to the U.S., or forwarding to a Productivity Center or other technical library, should be arranged. If the material is free and useful to some other library it should be sent to that library. If it is worthless, and some publications are worthless to everyone, it should be sold for scrap paper, if this is permissible, or thrown away.

After the collection has been organized and in use for a certain period, usually of about one year, it should again be reviewed, and all material

that has not been used and is not likely to be used should be sorted out. This process is called "weeding." The material weeded out should be disposed of in the same manner as in the initial sorting. Weeding should be repeated at least once each year. A judicious combination of weeding and acquisition will insure that the collection continues to be complete and up-to-date.

Record Keeping

No inventory need be kept of material having little or no financial value. Records must be kept of all purchased, donated, or loaned publications of any financial value. These records should show what publications have been ordered and received, how many copies or volumes are in the library, and their cost. This latter item is for budgeting, auditing and determining the charge to make if a publication is lost. The procedures for record keeping are as follows:

The library should prepare a simple order-slip form or use special ones made up by a printer or library supply house. (Because of the peculiar nature of the publications in a technical library, commercially available order slips such as those prepared by library supply houses are seldom satisfactory.) Order forms should be prepared in quantity in advance. Each slip should contain space for the following information: title, author, date of publication, publisher and/or source, number of copies, date ordered, and date received. All the information available should be furnished.

An order slip should be completed in triplicate for each publication to be purchased. The original copy of the order slip should be sent to the purchasing agency and the other two copies should be filed alphabetically by title. One of these copies will go eventually into the accession file.) When the publication is received, record the "date received" on both file copies of the order slip. (See Figure 17.)

Records of publications automatically received from ICA, donated, or received by exchange, can be kept by using the same order slip form. Two copies of the order slip should be filled in completely as each item is received. Both order slip copies should be filed alphabetically as before.

Accession # 235	TITLE Photography for Everyone
Cost $4.95	
Date ordered 4/12/60	AUTHOR [illegible]
Source The Booklist 2/15/60	PUBLISHER Studio-Viking YEAR 1959
Number of copies one	Recommended by: CA/Washington
Date received 6/24/60	LAGOS PRODUCTIVITY CENTER 15 New Road Lagos, Nigeria

Figure 17. Order Slip for Non-expendable Materials

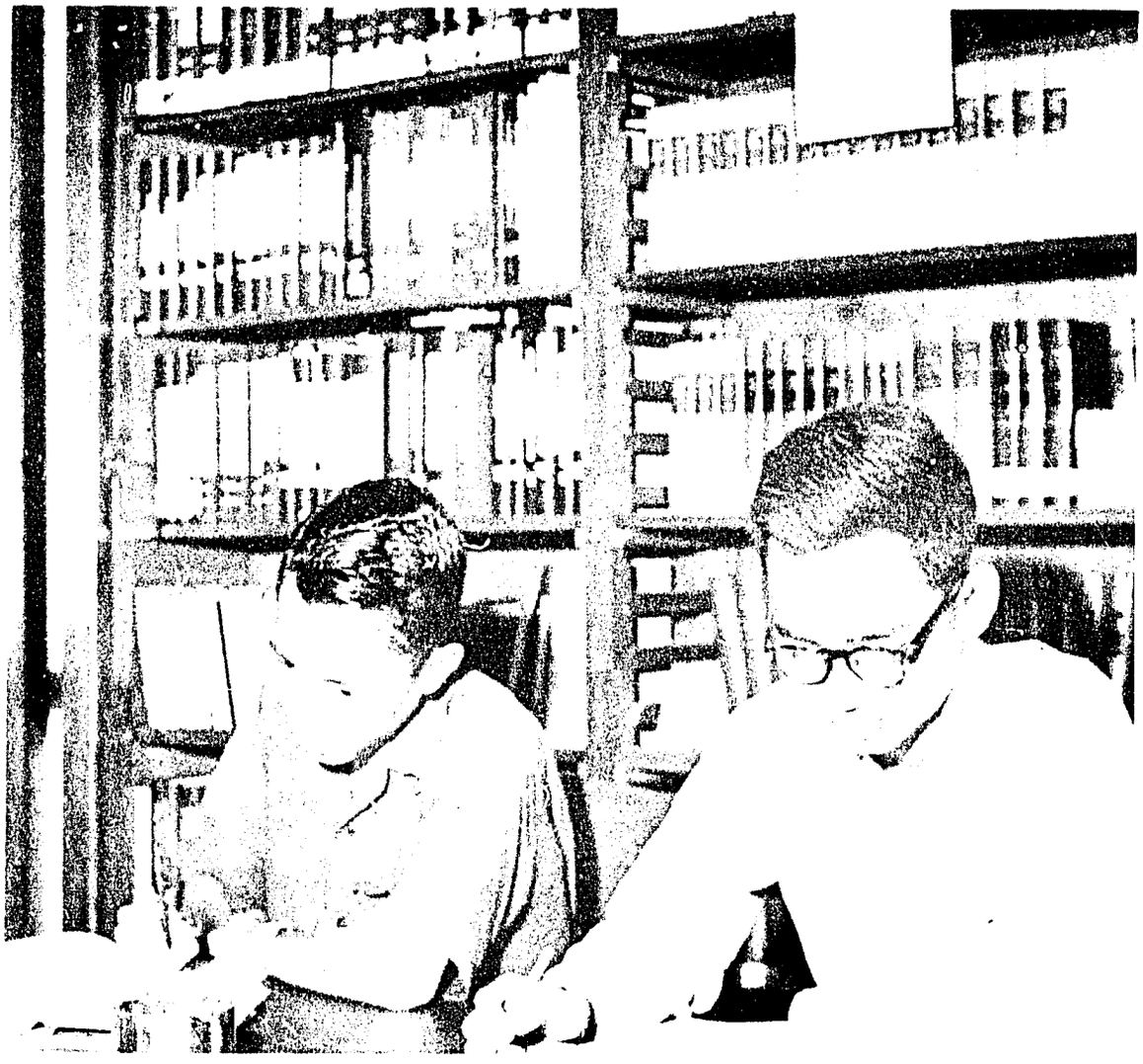
The accession file tells how many books are in the library at any given time. Accessioning is the name given to the process of keeping a count of all publications added to the collection. The simplest accessioning system consists of giving each publication a number when it is received. This number is stamped or written on the title page of the publication and on each of the filed order slip copies. Then one of the two slips in the alphabetical file is removed and filed by accession number. If this is done immediately after the publication is received, the next number to be used will always be easy to determine. The publication is now ready for classifying. (Classification is the subject of the next chapter.) When publications have been classified, there will be a record, for every publication, by accession number, title, and subject.

Suggested Reading

Wilson, L. R., ed., The Practice of Book Selection, University of Chicago Press, Chicago, Ill., 1940. $2.50

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib (4 Palace Gate, W.8), 1955. $8.00

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th St.), 1951, 202 pp. $6.00.



sample request for publications

LAGOS PRODUCTIVITY CENTER
15 NEW ROAD
LAGOS, NIGERIA

Standard Implement Company
4-11 Caral Avenue
Giza, Egypt

1, June 1960

Gentlemen:

The function of the Lagos Productivity Center is to provide technical advice and assistance to government officials, businessmen, teachers, and other organizations and individuals concerned with the improvement of our economy. An integral part of the Center is the technical library which collects and makes available material on products and processes essential to all forms of enterprise.

Your publication entitled:

Applications of Self-Propelled Implements

would be useful to our staff and visitors to the Center. Would it be possible for you to send us a copy, gratis? Also, we would appreciate your placing our name on your mailing list in order to receive similar publications in the future. If there is a charge for your publications, kindly quote price before sending.

Thank you for your cooperation.

Sincerely yours,

Josef Noramah
Librarian

JN:ar

sample exchange letter

LAGOS PRODUCTIVITY CENTER
15 NEW ROAD
LAGOS, NIGERIA

Ministry of Agriculture
Government Building
Giza, Egypt

17 June 1960

Gentlemen:

The function of the Lagos Productivity Center is to provide technical advice and assistance to government officials, businessmen, teachers, and other organizations and individuals concerned with the improvement of our economy. An integral part of the Center is the technical library which collects and makes available material on products and processes essential to all forms of enterprise.

We have noted with interest that your organization publishes materials on contour farming. These studies and reports would be useful to our staff and to visitors to the Center. We hope that some of our publications would be useful to your staff. Would it be possible to arrange to exchange your materials for duplicate copies of ours? I am sending you under separate cover sample copies of some titles in which you might be interested.

If you would like to arrange such an exchange, kindly let me know and I will place your name on our mailing list for such materials as you believe useful to your organization.

Sincerely yours,

J. Noramah

Josef Noramah
Librarian

JN:ar

sample thank you letter

LAGOS PRODUCTIVITY CENTER
15 NEW ROAD
LAGOS, NIGERIA

Ministry of Agriculture
Government Building
Giza, Egypt

7 July 1960

Gentlemen:

Thank you for the material which you so kindly sent us:

Plowing for Multi-Level Planting
Slope Farming

These publications will be helpful in keeping our staff and visitors to the Center who are concerned with this subject up-to-date.

Sincerely yours,

Josef Noramah
Librarian

JN:ar

CHAPTER V

ARRANGING THE COLLECTION

Books may be arranged in a library in many ways. If there are only a few books in a home library, a special method of arranging them is quite unnecessary. Merely placing the books on a convenient shelf where they are readily available is usually sufficient for all practical purposes. As soon as approximately 100 books have been acquired, it is necessary to arrange them in an organized manner in order to facilitate the location of a particular book. Since the technical library will have at least 100 books, and people will be searching for a particular book, the books must be arranged according to a definite plan and stored according to plan.

Let's examine some possible book arrangement plans. The books could be arranged according to size, color or the date they are added to the library, but a search for a certain book is seldom made with reference to its size, color, or the date it was added to the library. Perhaps the books could be arranged alphabetically by author or title. However, it is often difficult to remember the exact name of an author or the exact title of a much-needed book. The best way to arrange books is by subject because when a person searches for a particular book, he usually searches for a book about a certain subject. Therefore, it is better to store all the books on a particular subject in one place. Arrangements of books by subject are called "book classifications" because the books are grouped by classes or subjects.

Classification Systems

Most book classification systems provide for books to be marked with letters or numbers as symbols to represent different subjects. The use of such symbols has several advantages. Symbols are readily seen. A symbol can be placed on the spine (edge) of a book, but words cannot. The letter or number symbols can always be assigned a single subject meaning, but words usually have "family" meanings. For example in the classification system introduced in this chapter, the symbol $\frac{1}{23}$ is used for all publications about the manufacture of something to wear, regardless of whether the item referred to is "clothing," "apparel," or "garments."

(Note: In this manual the classification symbols will be presented horizontally; for example, D-07 indicates: $\frac{D}{23}$.)

The classification systems used by most libraries are much too general for satisfactory use with the publication collections of Productivity Center technical libraries. With the exception of general reference books and possibly material about the business opportunities within the country, most of the materials to be classified will deal with the organization, operation, and economic aspects of types of business enterprises. An attempt to use a general classification system would cause many sections of such a system to be unused while other sections would be impossibly overused.

Many library workers are familiar with the Dewey Decimal Classification System. Your technical library would probably have little use for the Dewey system numbers in the 900 series. In the 16th edition of the Dewey system the 900 series fills 361 pages. If a number of books dealt with the operation of retail stores, the Dewey number of a certain book could look like this: 658.096292.

It is necessary to find a classification system that fits the needs of a technical library. Fortunately, such a system has already been developed. It is known as the Standard Industrial Classification. This system was prepared by the U.S. Bureau of the Budget. (The full reference appears in the bibliography of this publication.) This classification was not devised as a classification system for books, but it was developed for use in the classification of establishments by activity types for the purposes of facilitating the collection and promoting uniformity in the presentation of statistical data. The Standard Industrial Classification is intended for the classification of the entire field of economic activities.

Since a technical library is concerned primarily with economic activity materials in the form of books and other printed materials, it is recommended that the Standard Industrial Classification be used in arranging the collection.

The information which follows is a condensation of the Standard Industrial Classification Manual. This information is given for the guidance of librarians at beginning or small technical libraries. Larger libraries may obtain a copy of the complete Manual, but it is doubtful that any but the largest will have need for the detail shown in the Manual.

The Standard Industrial Classification system makes use of combinations of letters and numbers. The letters represent the large divisions of industrial practice such as agriculture, mining, and manufacturing. If the technical library collection is rather small, perhaps these major divisions are all that will need to be used to classify the material so that individual items can be easily located. Such a small library with perhaps 100

books and one filing cabinet for vertically filed materials would merely place a symbol letter on a book spine. For example, all books about farming (agriculture) would be marked as the book in Figure 18 is marked.

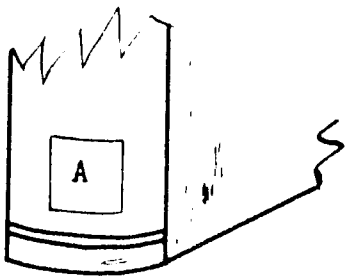


Figure 18. Typical Book from a Small Technical Library Collection

If there are many books in the library collection, or if the collection consists of books which deal with just a few subjects, numbers should be used to identify each book, in addition to the letters used in the above illustration.

Perhaps mining is the principal occupation of the people in your country. The library collection will surely contain a great number of books about mining. The classification letter B (mining) on each book about mining would be insufficient identification. Numbers which refer to the mining of different minerals should be added to the backbone label on each book. Figure 19 shows a number of different books on mining which have been labeled for easy identification.

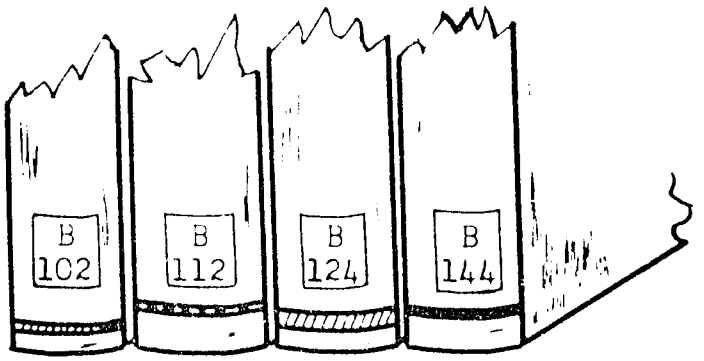


Figure 19. Properly Labeled Books Which Contain Information About the Mining of Various Minerals

One great advantage of this classification system is that numbers may be added to books in certain sections of the growing collection without relabelling the books. For example, let's suppose the country has or develops an important system of inland waterways. The classification symbol E-44 alone may not provide enough detailed information to locate materials about inland waterways with ease. A book with information about transportation on rivers and canals could be marked with the symbol E-4441 (transportation, water, rivers and canals) to indicate the exact nature of its contents. If the number system must be expanded within a classification subject group, do not neglect to add additional descriptive numbers to all books in the collection that contain information about that subject. If the symbol E-4441 identifies one water transportation book, no book in the subject category should continue to carry an E-44 symbol or merely an E symbol.

How to Classify a Book

The contents of a book should be carefully examined before a symbol for its identification is chosen. A subject symbol cannot be chosen after a glance at the book's title because book titles may be misleading and the title may not emphasize the subject matter of most importance to the library users. For example, a publisher recently announced the publication of a book entitled Private Investment. It could be logically assumed to contain information about personal finances. However, a careful examination of the contents disclosed subject matter concerned with the capital risks assumed by large, privately-owned businesses.

The principal subject of a book must be identified before the book can be classified. First, open the book and examine its table of contents and preface. This examination should reveal the scope and emphasis of the book. If the exact nature of the book is still not apparent, it may be necessary to read one or two chapters before deciding upon the classification symbol to assign the book. If the subject of the book is difficult to understand or difficult to identify, ask an expert in the subject field for assistance in classifying the book properly.

Decisions about the subject matter identification and the classification of books are difficult responsibilities of the librarian. Early mistakes should not cause discouragement, but should emphasize the need for alertness to avoid future mistakes. A few basic suggestions may help make the proper decision:

1. Concentrate on the task at hand. Give careful attention to the work. Do not attempt to make classification decisions when distractions are present.

2. Always be consistent. Do not use one symbol for a book on a particular subject and a different symbol for another book about the same subject.

3. Do not hesitate to ask for assistance. No one person is expected to be thoroughly familiar with all technical information subjects.

4. Spend some time in a careful study of technical subjects and the professional literature about classification.

Libraries which employ trained librarians also have catalogues or book lists. Such lists are usually arranged by author, title, and subject matter. This list is a guide to the collection. The task of cataloguing a library collection is rather difficult. It should not be attempted by a person who has not had library training.

Perhaps the title of a book and the name of its author could be important information for a person searching for a particular book. A subject-matter catalogue, however, is probably more important than an author or title catalogue.

Subject Indexing. A subject index is usually prepared on small cards. Each book requires a separate card. New books can be catalogued by merely adding another subject index card to the file, placing it in proper alphabetical order.

Whenever a book, pamphlet, or other published material is classified, a card which shows the subject and classification number should be prepared. A suggested style is shown in Figure 20.

ELECTRONICS

• AUTHOR

Grob, Bernard . . . RCA Institutes, New York

PUBLISHED APRIL 1959

• TITLE

BASIC ELECTRONICS

524 pp. 6 x 9 $9.25‡

A beginning text on the basic principles of electronics for those with no background in electricity. The mathematics is limited to simple algebra. Text deals with the essential principles of electricity, magnetism, and simple electric circuits. Answers to the short-answer questions are given at the end of the text.

(OVER)

McGRAW-HILL BOOK COMPANY

330 WEST 42nd STREET NEW YORK 36, N. Y.

Library of Congress Catalog Card Number: 58-13003

‡Textbook edition available at educational list price.

U. S. A. L17137

Figure 20. Subject Index Card (Electronics)

If more than one subject term is used on the original card, a second card should be prepared as illustrated in Figure 21.

ELECTRICITY

• AUTHOR

Grob, Bernard . . . RCA Institutes, New York

PUBLISHED APRIL 1959

• TITLE

BASIC ELECTRONICS

524 pp. 6 x 9 $9.25‡

A beginning text on the basic principles of electronics for those with no background in electricity. The mathematics is limited to simple algebra. Text deals with the essential principles of electricity, magnetism, and simple electric circuits. Answers to the short-answer questions are given at the end of the text.

(OVER)

McGRAW-HILL BOOK COMPANY

330 WEST 42nd STREET NEW YORK 36, N. Y.

Library of Congress Catalog Card Number 58-13503

‡Textbook edition available at educational list price.

U. S. A. L17137

Figure 21. Subject Index Card (Electricity)

Subject index cards are filed alphabetically according to the first word of the subject. If such an index is maintained in the library, publications to satisfy inquiries for a particular subject area can be easily located without searching through the entire collection within a certain classification. A note of caution is in order: If the subject index does not contain an index card for a certain topic, do not assume that the library collection does not have publications on the topic. The library collection may contain needed information in its general reference books or in related subject books. If possible, it should not have a book classified as Schools H-62. Since schools are usually operated by governmental units, the books classified in the various government divisions "I" may contain information about schools. Remember that an index or a catalog, regardless of how complete it may seem to be, can never replace the resourceful thinking of the human mind.

Shelf Lists. There is another card record that should be maintained for books only. This card record is known as the shelf list. The shelf-list is a card record of all books on the library shelves exactly as they appear on the shelves. There is a card for each book in the collection.

Shelf list cards are arranged by classification symbols in the same manner the books themselves are arranged in the library. No book should be placed on a shelf until a shelf list card has been prepared for the book.

The shelf list card is an additional subject guide to the collection. This list may be quite helpful when additional book titles are selected for the library collection. The shelf list becomes a useful guide to the adequacy of library materials. Let's suppose that the library has many requests for books about fisheries. A glance at the shelves would be a poor indication of the need to order additional books because many of the books would be circulating and off the shelves. A quick glance at the shelf list cards, under the symbol code A-[illegible] would quickly indicate whether or not enough books are in the collection to meet the demand for books about fisheries. The shelf list is very useful whenever an inventory of the library is taken.

Typing Rules. Typed cards must be clean, neat, and of a uniform format and style. A neat appearance is desirable, but it is important to have cards that are neat and uniform to enable the viewer to concentrate upon the information on each card. The eye is distracted by inconsistencies of style, smudges, and erasures. A definite, standard style should be established as a guide for the preparation of all cards. Here are a few style recommendations for index cards (Also see Figure 22.):

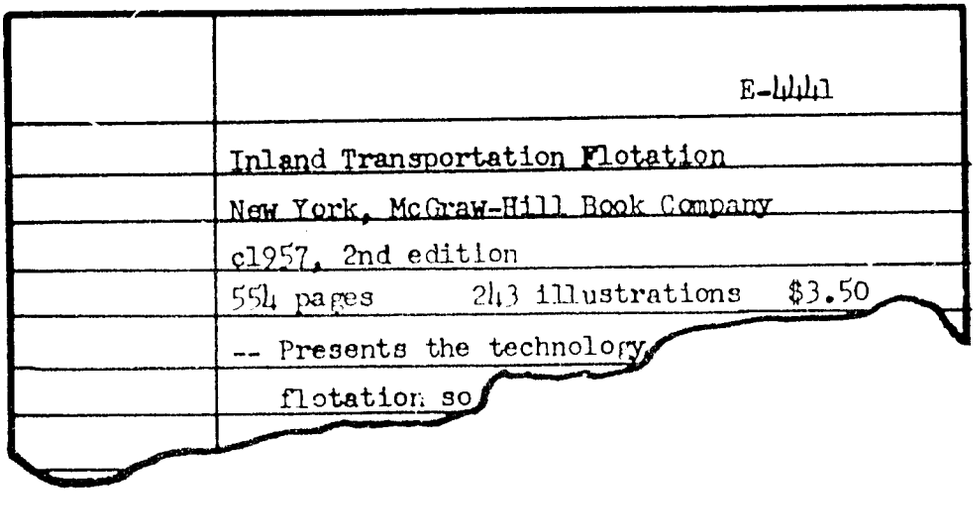


Figure 22. Index Card.

Index Card Style:

(1) Place the first line of copy three (3) spaces below the top of the card.

(2) Place the first letter of the first word of each line of copy nine (9) spaces from the left-hand edge of the card.

(3) Arrange each classification symbol so that it ends three (3) spaces from the right-hand edge of the card.

Here are a few style recommendations for the shelf list cards (Also see Figure 23.):

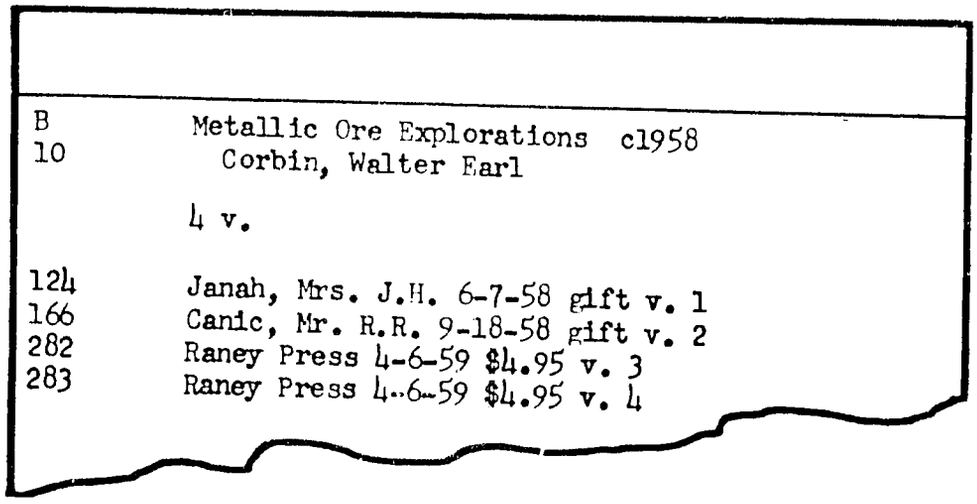


Figure 23. Multiple-Copy Shelf List Card

Shelf List Card Style:

(1) Place the first line of copy three (3) spaces below the top of the card.

(2) Place the classification symbol one (1) space from the left-hand edge of the card.

(3) Place the first letter of the first word of the title nine (9) spaces from the left-hand

edge of the card and on the same line as the first symbol of the classification number.

(4) Place the date two spaces after the end of the title; the accession number should be placed directly under the classification number.

Vertical Files

Many materials contained in the collection of the technical library will be materials other than books. Pamphlets, small documents, mimeographed pages, reprints, clippings of articles from newspapers and periodicals, and brochures are examples of these materials. These materials cannot be placed on shelves, but they are often important resources for persons who use the library. These materials are usually small, inexpensive, and readily available. They deal with many subjects. Current material is often published in one of these forms mentioned before it is published as a part of a book. Therefore, the librarian must know how to arrange and store these materials.

Since these materials cannot be stored on shelves as books are stored, they must be kept in a container. A container known as a "vertical file" or "filing cabinet" provides an excellent storage facility. Materials are arranged and stored in the drawers of such a vertical file by subject topics.

These miscellaneous materials are carefully examined and classified according to the Standard Industrial Classification used for books. The code classification symbol should be marked on the upper right-hand corner of each item as shown in Figure 24.

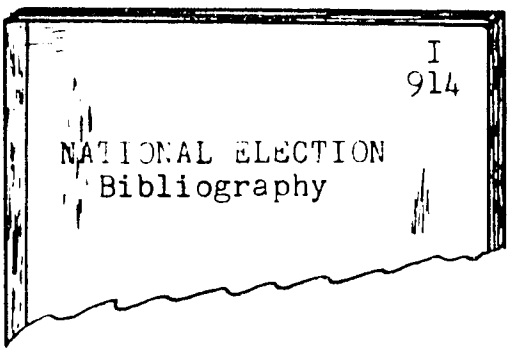


Figure 24. Symbol Placed on Pamphlet

All miscellaneous items which have the same classification symbol should be placed in the same manila file folder. The symbol should be typed on a file folder label and affixed to the folder edge as illustrated in Figure 25.

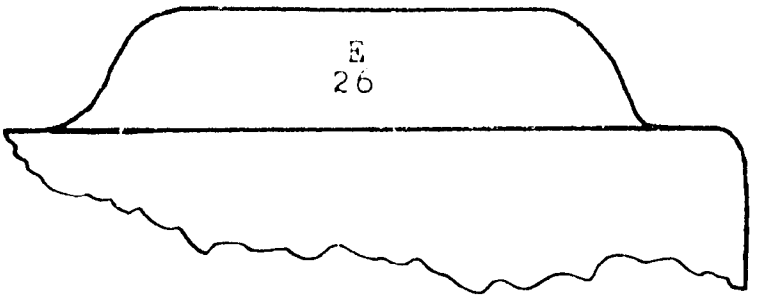


Figure 25 File Folder Labeled for Vertical Filing

Subject index cards should be prepared for the library catalog for each subject and each item placed in the vertical file. The cards should be prepared in the same manner and style as book subject index cards are prepared. A shelf list card should not be prepared for vertical file materials.

Periodicals

Periodicals are valuable resource materials in the library collection. Periodicals are any materials published at regular intervals (daily, weekly, monthly, or quarterly). Annuals are usually regarded as books and are treated as such. Periodicals are useful and important because they contain current information. Some periodicals contain only current information; others contain scholarly articles as authoritative and as enduring as the information found in books. Most periodicals contain such information occasionally.

It is important to keep a record of the periodicals received by the library. This can effectively be accomplished by a card record. A periodical card should be prepared for each periodical received. (See Figure 26.) The card should include the following information about the periodical: its title, its publisher, its source, the expiration date of the subscription, the frequency of issue, the price of the periodical, and a space to note the dates of receipt.

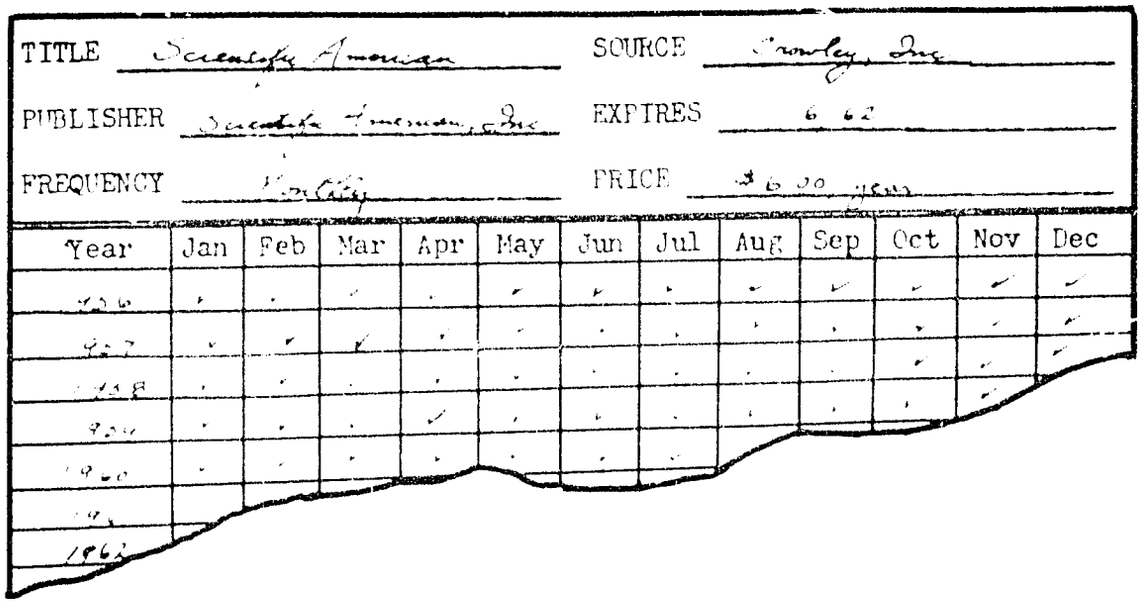


Figure 2c. Monthly Periodical Card

Many periodicals have distinctive titles. The periodical cards and the periodicals themselves are usually arranged alphabetically by title. Many periodicals contain information about several subjects, and they would be difficult to arrange by subject. Library users often request periodicals by title.

A storage problem may be created as back issues of periodicals accumulate. Certain periodicals will have permanent value. Back issues of such periodicals should be bound and classified as books. Periodicals are identified by date and usually bear a volume number. Most publishers furnish an index for each complete volume. The issues comprising the volume can be bound after the last issue of the volume has been received and the index has been received. Do not bind an incomplete volume of a periodical. Binding is expensive. Only periodicals of lasting value should be bound.

Most periodicals contain an article or two in each issue which should be kept in the library collection. Review the files of periodicals occasionally and clip out the articles which should be saved. (Don't clip articles from the periodicals that will be bound later--use duplicate copies of periodicals.) Write the name and date of the periodical the article was removed from on the front sheet of the article to identify the article for future readers. The articles should then be placed in the vertical file, cataloged as other vertical file materials are cataloged.

Most periodical subscription periods are one year. Avoid missing an issue of useful periodicals by maintaining a subscription expiration record.

Only a trained librarian or indexer should attempt to index periodical articles. Perhaps the subject index described in the following pages will be sufficient for periodical article filing. If many articles of interest on a particular subject are published in a certain periodical from time to time, the publisher's index should be preserved for future use.

Only basic classification processes have been discussed. As the library collection grows in size and complexity, additional processes will be required. The librarian should receive special training in library classification processes. An inexperienced and untrained person is inclined to established procedures that are too complicated for himself and the user to follow. It is poor librarianship to have valuable materials lost in a maze of complicated systems or misfilings.

Abridged Standard Industrial Classification Code

Division A - Agriculture, Forestry and Fisheries

01 - Farms--includes agricultural processes and raw products. (For processing of farm products, see subject; for example, rice millings L-20)

07 - Agricultural services--includes animal husbandry services, veterinary services. (For manufacture of farm produce, see subject; for example, meat packing D-20)

08 - Forestry--includes timber tracts, forest nurseries, gathering of oils, gums, barks, forest management, fire fighting, reforestation. (For lumbering and manufacture of wood products, see D-24)

09 - Fisheries--includes the catching or taking of fish, shell fish, and other marine products, for sale. Fishing for sport or home consumption is not included. Includes also fishery such as hatcheries and stocking. (For processing of fish as food, see D-20; as fertilizer, see D-28)

Division B - Mining

10 - Metal mining--includes mining, developing or exploring for metallic ores, and ore dressing. (For manufacture of metal products, see product; for example, iron and steel D-33)

11 - Anthracite mining

12 - Bituminous coal and lignite mining

13 - Crude petroleum and natural gas--includes exploration, drilling, extracting. (For transportation, refining, sale and distribution, see those subjects; for example, petroleum refining I-29)

14 - Mining and quarrying of nonmetallic minerals, except fuels--includes stone, sand and gravel, clays, chemical and fertilizer mineral mining. (For manufacture of stone, clay, and glass products, see D-32)

Division C - Construction

15 - Building construction

16 - Heavy construction--includes highways and streets, bridges, sewers, railroads, irrigation projects, flood control projects, marine construction. (For operation of such projects, see the subject; for example, railroad transportation E-40)

17 - Special construction--includes plumbing, heating and air conditioning; painting, paper-hanging and decoration; electrical work; masonry; carpentering; roofing and sheetmetal work; concrete work; water well drilling; demolition.

The above refers to these processes only in conjunction with construction. (In other connections, see the subject; for example, electrical work in repair shops, see H-76; for the products used in construction, see the product; for example, manufacture of paint, see D-28)

Division D - Manufacturing

19 - Ordnance and accessories--includes guns, ammunition.

20 - Food and kindred products--includes meat products, dairy products, canning and preserving fruits, vegetables and sea foods, grain mill products, bakery products, sugar and confectionery, beverages. (For raw products, see the product; for example, fish A-09)

21 - Tobacco manufacture--(For growing tobacco, see A-01)

22 - Textiles--includes preparation of fibers, manufacture of yarn, fabrics, dyeing, and finishing. (For natural products used in textiles, see A-01; for synthetic products, see D-28. For manufacture of articles from fabrics, see the product; for example, apparel D-23)

23 - Clothing, apparel made from fabrics and miscellaneous products made from fabrics--includes men's, women's and children's clothing, fur goods, rainwear, leather clothing (except shoes), curtains and draperies, rugs, canvas products, embroidery. (For shoes, see D-31)

24 - Lumber and wood products except furniture--includes logging, sawmills, veneer, plywood, wooden containers. (For forest products, see A-08)

25 - Furniture--includes household, office, public building furniture, partitions, Venetian blinds.

26 - Paper and allied products--includes pulp mills, paper mills, paper and paperboard products. (For the products of which paper is made, see product; for example, wood for paper, see D-24)

27 - Printing, publishing and allied industries--includes all operations connected with newspaper, periodical and book publishing; printing, bookbinding. (For writers, see H-89; selling F-59)

28 - Chemicals and allied products--includes production of basic chemicals, organic and inorganic, and manufacture of products by predominantly chemical processes. Products include: alkalies, chlorine, coal tar crude products, dyes, plastics, synthetic rubber, synthetic fibers, drugs, soaps, detergents, perfumes, cosmetics, paints, varnishes, lacquers, fertilizers and pesticides, glue, explosives, printing ink. (For manufacture of products using these chemicals, see product; for example, manufacture of textiles from synthetic fibers, see D-22)

29 - Petroleum refining and related industries--includes production of gasoline and other products from crude oil, manufacture of paving and roofing materials, and miscellaneous petroleum products. (For mining petroleum, see B-13; use of petroleum products, the industry; for example, use of paving materials in road construction, C-16)

30 - Rubber and miscellaneous plastics products--includes tires and inner tubes, rubber footwear, reclaimed rubber, molding primary plastics and fabricating miscellaneous plastics products. (For natural rubber, see A-08; manufacture of synthetic rubber and plastics, see D-28)

31 - Leather and leather products--includes tanning and finishing, manufacture of all leather and artificial leather products such as shoes, luggage, handbags.

32 - Stone, clay and glass products--includes flat glass and other glass products (except lenses), cement, structural clay products, pottery, concrete and gypsum products, cut stone products, abrasive and asbestos products. (For lenses, see D-36, quarrying B-14)

33 - Primary metal industries--includes smelting and refining of all metals from ore, pig or scrap, rolling drawing and alloying metals, manufacture of castings, forgings, nails, spikes and insulated wire and cable, production of coke. (For metal mining, see B-10, manufacture of metal products, the product; for example, jewelry D-39)

34 - Fabricated metal products--includes cans, tinware, hand tools, cutlery, general hardware, plumbing apparatus, structural metal products, finishing of metals by plating, coloring. (For production of metals, see D-33; manufacture of ordnance, D-19; machinery, D-35 and D-36; transportation equipment, D-37; watches and clocks, D-38; jewelry and silverware, D-39)

35 - Machinery except electrical

36 - Electrical machinery, equipment and supplies. (For production of electricity, see E-49)

37 - Transportation equipment--includes motor vehicles and equipment, aircraft and parts, ship and boat building and repairing, railroad equipment, motorcycles, bicycles and parts, vehicles drawn by animals. (For instruments such as aircraft instruments, see D-38)

38 - Professional, scientific and controlling instruments; photographic and optical goods; watches and clocks. (For electrical instruments, see D-36)

39 - Miscellaneous manufacturing industries--includes jewelry, silverware and plated ware; musical instruments and parts; toys, amusement, sporting and athletic goods; pens, pencils,

artists' materials, and other products not classified elsewhere. (There are many products which could be classified here but provision has already been made for them in other groups; for example, bicycles D-37; firearms, D-19; drafting instruments, D-38)

Division E - Transportation, communication, electric, gas and sanitary services

40 - Railroad transportation--(For manufacture of railroad equipment, see D-37)

41 - Local and suburban transit and interurban passenger transportation--includes trolleys, busses, taxis. (For manufacture of equipment, see D-37)

42 - Motor freight transportation and warehousing--(For manufacture of equipment, see D-37)

44 - Water transportation--(For boat building, see D-37)

45 - Air transportation--(For aircraft construction, see D-37)

47 - Transportation services--includes freight forwarding, stockyards, services incidental to transportation.

48 - Communication--includes telephone, telegraph, radio and television. (For postal services, see I-91; manufacture of communications equipment, D-36)

49 - Electric, gas and sanitary services--includes also water supply and irrigation. (For manufacture of equipment, see product; for example, electric equipment D-36)

Division F - Wholesale and retail trade

50 - Wholesale trade

52 - Retail trade: building materials, hardware and farm equipment

53 - Retail trade: general merchandise

54 - Retail trade: food

55 - Retail trade: automotive dealers and gasoline service stations

56 - Retail trade: clothing and accessories

57 - Retail trade: furniture, home furnishings and accessories

58 - Retail trade: eating and drinking places

59 - Retail trade: retail stores which cannot be classified elsewhere

Division G - Finance, insurance and real estate

60 - Banking

61 - Credit institutions other than banks--includes savings and loan associations, personal credit institutions.

62 - Security and commodity brokers and dealers

63 - Insurance companies

65 - Real estate operators and dealers

Division H - Services

70 - Hotels, rooming houses, and other lodging places

72 - Personal services--includes laundries, cleaning and dyeing establishments, photographic studios, beauty shops, barber shops, shoe repair shops.

73 - Miscellaneous business services--includes advertising; duplicating, addressing; stenographic services; services to dwellings and other buildings such as window cleaning and exterminating; news syndicates; private employment agencies.

75 - Automobile repair, automobile services and garages

76 - Miscellaneous repair services--includes electrical repair shops, watch, clock and jewelry repair, and other repair shops not elsewhere classified.

78 - Motion pictures--includes motion picture production and distribution, motion picture theaters.

79 - Amusement and recreation services except motion pictures--includes dance halls, theaters (except motion pictures), musical entertainers, bowling alleys, sports operations such as golf courses, bathing beaches.

80 - Medical and other health services--includes doctors, dentists, hospitals.

81 - Lawyers

82 - Educational services--includes elementary, secondary schools, colleges and universities, private schools, libraries.

84 - Museums, art galleries, botanical and zoological gardens

85 - Nonprofit membership organizations--includes business, professional, social, political, religious and charitable organizations, labor unions.

88 - Domestic service in private households

89 - Miscellaneous services--includes all services not elsewhere classified such as engineering and architectural services, accounting.

Division I - Government

91 - National government--includes legislative, judicial and administrative functions. (Classify here only governmental functions as such; class substantive operations with the subject; for example, class the Ministry of Education here but classify schools in H-82)

92 - State or provincial government. (See notes above.)

93 - Local government--includes counties except where they are equivalent to states or provinces, as in England; districts; municipalities, towns, and villages

94 - International government--includes the United Nations and such regional organizations as NATO and SEATO. (For specialized international agencies, see subject; for example, WHO, H-80)

Division J - Nonclassifiable establishments--use only when an establishment cannot possibly fit into any other division.

Suggested Reading

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib (4 Palace Gate, W.8), 1955, 387 pp. $8.00

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th St.), 1951, 202 pp. $6.00

Standard Industrial Classification Manual, available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1957. $2.50.

CHAPTER VI

PHYSICAL CARE OF THE COLLECTION

As new books are received, their paper covers (book jackets) should be removed and put away to save for displays. Each book should be opened in the following manner: The book is laid on its spine and the front and back covers are laid flat. A few of the back pages should then be pressed down by running a finger along where they join the spine; a few front pages should be pressed down in the same way. The process should be continued with a few more back pages and then a few front pages until the middle of the book is reached. Opening a book this way helps prevent its spine's being broken later by an inexperienced user.

The book should be examined quickly for defects. If the book is defective (blank pages, incorrectly bound, blurred printing, etc.), it should be returned to the source from which it was obtained, with a letter explaining the defect and requesting a replacement. If the book has no defects, it should be stamped with the property stamp in various places. Such a property stamp mark is shown in Figure 27. Some librarians stamp

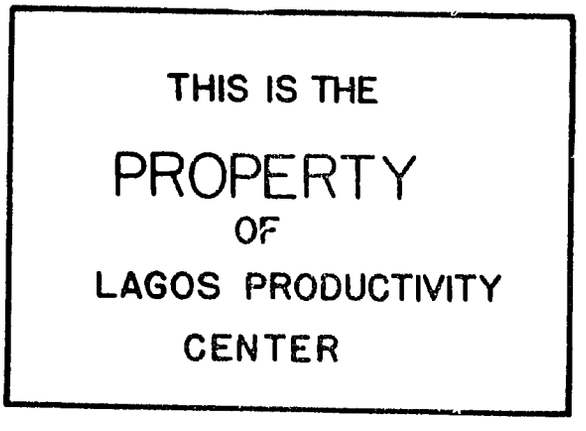


Figure 27. Property Stamp

the front and back pages; some stamp the title page. Some librarians stamp a designated page, such as page 15, in each book of the collection. Where books will be stamped should be decided in advance, and books should always be stamped in the same place. The following exceptions must be made to this rule: No maps, charts, or decorations used as end papers should be stamped over, and the stamp should never be placed where it will cover any text material.

Next, a date-due slip is pasted on the back fly leaf and a card pocket (with card inserted) glued onto the inside back cover. (See Figure 28.) The card pocket should never be covered with the date-due slip. (If end papers are decorative or contain information, the first available blank page next to the back of the book can be used.) The date-due slip and the card pocket will look like this:

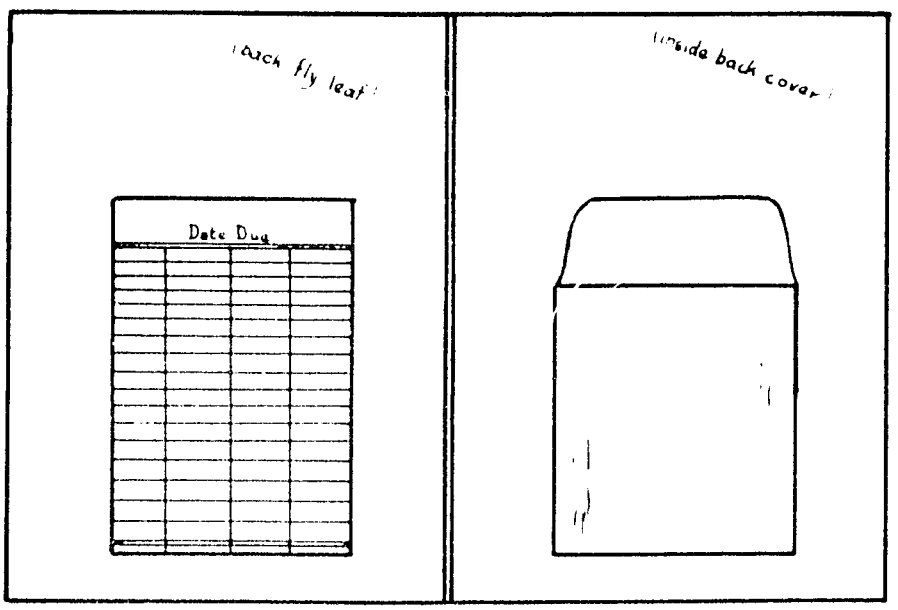


Figure 28. Placement of Date-due Slip and Card Pocket

Labeling New Books

Now a label is prepared with the book's call number (catalog identification) on it. The label is pasted on the spine 1 1/2 inches from the bottom of the book. (See Figure 18, Chapter V.) If the book is so thin that the label cannot be pasted on the spine, it can be pasted 1 1/2 inches

from the bottom of the front cover at the edge of the spine. If the librarian can letter neatly, the call number can be printed on the label in India ink. It is often better to type the label. Hand printed labels are easier to read from a distance but not unless the figures are neat and clear. The label must read exactly like the call number on the classification card.

Shelving

The book is now ready to be placed on the shelf. Each new book is to be put in its proper place according to the classification it has been given. Each morning when the librarian arrives he should "read the shelves," i.e., go over them carefully to see that each book is in its correct place. This will assure him that readers can find the books they are looking for if they are looking in the right place. It will take a few minutes each day but will save hours of searching later for a misplaced book.

In shelving books, they should be kept even with the front of the shelves; they are much easier to see this way. If there are only a few books on each shelf, there are a number of ways the gaps can be filled in to make the shelves look less bare. On some a colorful book jacket can be pasted against the wall; on others a book or pamphlet can be placed beside a row of books on the same or similar subject so that it catches the peruser's eye. As the collection grows, books may have to be shifted. To avoid doing this too often it is a good practice to fill only one half or three fourths of each shelf and to leave empty the top and bottom shelves. Then many new books can be added before older books have to be shifted.

Shelf labels should be applied where necessary and useful. (See Figure 29.)

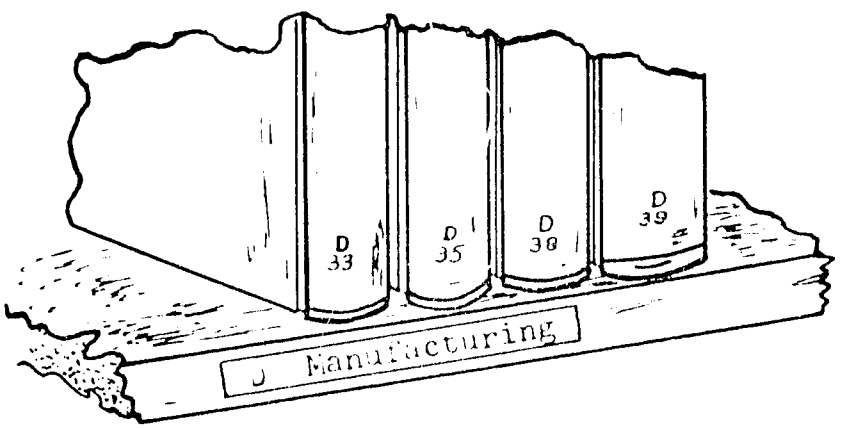


Figure 29. Shelf Label

Some are essential; too many only confuse the eye. Use no more than one label per shelf or per subject. If removable shelf labels cannot be obtained, strips of paper the thickness of the shelves can be cut. The subjects can be printed or typed on them, and the strips can be glued to the shelves. When the labels must be changed, they can be removed with warm water.

Mending and Binding

Like anything else, as books are used they become worn. Worn books can still be used if they are carefully mended. When the back of the book comes loose or its pages torn, repairs should be made. As with anything else, an ounce of prevention is worth a pound of cure and small damages are more easily repaired than large ones.

Following are a few simple suggestions: (Bookcraft, an excellent pamphlet, in English, on book repairing can be obtained free of charge from Gaylord Brothers, Stockton, California, USA.) When a book is returned by a borrower, it should be checked for damage before it is placed on the shelf. If there are pencil marks, they should be removed with a soft eraser. If there are torn pages, they must be mended with tape before the tear gets worse or the page is lost. If there is even a slight tear in the back of a paper-bound book, it must be mended or it will continue to tear. If the back of a hard cover book becomes loose, glue should be applied along the spine. This will postpone the back's breaking. If the covers come completely off but are not damaged, double-hinged tape can be used to put them together again.

Inventory

The librarian may be required to take an annual inventory of the collection and report all losses. Even if no official count is required, it is good practice to take inventory at least once a year. This will account for all the books the library is supposed to have and encourages steps to replace what is missing. As no records are kept of the vertical file material, it need not be inventoried. Most such materials are expendable and the cost of keeping track of them and taking an inventory of them would be greater than the cost of replacing them.

The following steps are taken when an inventory is made:

1. Notes should be sent to all borrowers asking them to return any publications they are not currently using. (It is not necessary to call in all books or to close the library.)

2. The tray or trays of classification cards should be checked by comparing each card in the tray with the book it represents; call number, title, and accession number should be checked. If the book is located, a small pencil check mark should be placed beside the accession number on the index card. The shelves should be checked first, then the circulation records should be checked.

3. If a book is not found, or is long overdue and all attempts to get it back have failed, a line should be drawn through the accession number and the words "Lost in inventory" (and the date) should be written on the card.

4. If the only copy, or all copies, of a book is lost, the decision must be made whether or not to replace it. If it is to be replaced, the classification card should be left in its proper place, and the new accession number should be added when the replacement book arrives. A reminder: an accession number should not be used again, even if the original book is lost. If the book is not to be replaced the classification card should be removed and a new file of "Lost Books" should be started. If the book appears later, the card can be refiled where it was before.

A brief summary of the inventory should be included in an annual library report. Items that should be reported are: the number of publications at the beginning of the year; the number lost and paid for and "lost in inventory"; the accessions; and the balance of publications on hand. The results of the inventory will show whether sufficient measures are being taken to safeguard the collection. If too many publications have been lost, a careful check should be made to see that the door is locked at night; that the librarian can observe all visitors as they enter or leave the library; that all books have been stamped and charged out carefully; and that sufficient information is recorded when publications are loaned. Libraries that haven't lost any books might be in a worse plight --perhaps people aren't using the library!

Suggested Reading

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib (4 Palace Gate, W.8), 1955, 387 pp. $8.00.

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th St.), 1951, 202 pp. $6.00.

Mews, Hazel, Books are Tools: The Organization of Small Technical Libraries for South African Industries, Pretoria, South African Council for Scientific and Industrial Research (P.O. Box 395), 1951, 28 pp. 2s,6d.

CHAPTER VII

SERVING THE LIBRARY'S USERS

The library exists to serve its users. The essential task of the librarian is to assist users of the library's resources. The maximum use of the library's collection is the goal of the librarian. Each person on the library staff must understand this basic principle of active service. Then the library can function effectively.

All library visitors should be made welcome. Each visitor should be given prompt and courteous attention. Library patrons should not be burdened with unnecessary routines. There should be a minimum of rules and regulations. A helpful and efficient staff and a well-organized collection are the foundations upon which effective library service is built.

Arranging the Library for Use

The physical arrangement of the collection can be a help or a hindrance to its users. The most-used materials are usually kept in the main reading room. This facilitates service and reduces the possibility that a user might overlook important material. Materials should be logically arranged on the shelves and in the vertical files. Logically arranged materials can be located with ease. Books should be shelved together, by subject, on open shelves. The contents of each bookshelf and vertical file drawer should be neatly labelled.

Current periodicals should be prominently displayed. Magazines are easy to locate and to replace when they are arranged alphabetically, by title. It is not convenient to group magazines by subject. (See Figures 30 and 31.) Back issues of periodicals should be stacked, separately by title, in pigeon-holed shelving, and retained in the reading room for one year. The files of older issues can be stacked, by title, in an adjoining storage room unless their frequent use warrants keeping them in the reading room for a longer period.

Figure 1. Newspaper and Periodical Area.

Figure 22. Periodicals Shelved in a Large Library.

Publications which are issued in a numbered series--such as the ICA Industry Reports and Technical Inquiry Service Reports (IR's)--can be placed in numerical order in vertical files. A fiber board divider should be placed between each 20 or 30 issues. The set of 3 x 5 inch index cards, to the Technical Inquiry Service Reports (available from the ICA Technical Aids Branch in Washington, D.C.), should be arranged alphabetically by subject (given in capital letters on the top line of each card) and placed in card drawers on top of the vertical files containing these reports. The vertical files and the index card drawers should be plainly labeled.

A complete set of the monthly ICA Technical Digest issues should be kept on open shelves in the reading room. A duplicate set of the Digests should be taken apart in order that the most useful articles can be placed in manila envelopes in the vertical files, together with other materials on the same subjects.

Reference books--such as dictionaries, encyclopedias, local and foreign telephone directories, biographical volumes, and financial manuals--should be arranged by subject in one area of the reading room. This area should be labeled "Reference Books" and each volume marked R (or REF) to insure its storage in this section of the reading room.

After a library item has been used, it should be returned to its proper place as soon as possible. It is usually convenient to assign this responsibility to one person only.

Handling Inquiries

Good rapport between a knowing technician and an alert librarian usually produces excellent results whenever inquiries are handled. The technical experience of the specialist--and his understanding of the contents of the literature--are essential for useful inquiry replies. It is usually possible for a librarian to locate clearly identified items. A librarian can often begin to assemble material on a given subject, but librarians should not make elaborately detailed replies to complex technical inquiries unless they possess appropriate technical training, or have had considerable experience in handling the library's collection.

Some inquiries may involve a language barrier. The librarian may be expected to translate an inquiry and some or all of the information involved in the reply.

The librarian can often help a user by obtaining study materials from the shelves and vertical files as they are needed. When such work is performed

under the direction of a technical specialist, the librarian receives invaluable in-service training.

If the librarian expects to do effective reference work, he must become familiar with the various types of publications in the library (including guides and indexes) and observe the manner in which a technician uses library materials when answering inquiries.

The ICA Index to Publications is an important reference tool. Its use should be understood. The librarian should carefully study the ICA Information Bulletins. These pamphlets describe the technical aids media and services. They also outline the individual uses and characteristics of various technical aids. The librarian should look to the technician for guidance in this technical familiarization. The librarian should, in turn, provide excellent help in handling inquiries and good public relations with the library's users.

It may be noted that most industry-program librarians have learned that a large percentage of their clientele can be provided with immediately useful information and/or ideas and often have their needs completely satisfied as a result of the effective use of a properly organized library and reference service.

Inquiries may come from library visitors, through the mail, or by telephone. If the inquirer comes to the library, this gives the technician the opportunity to explain complex material. Perhaps some technical terms and portions of text will require translation. The visitor-inquirer may help the librarian locate needed material by providing clues and suggestions and by accepting or rejecting materials placed before him. Thus, needed information may be quickly obtained. Personal visits to the library should always be encouraged.

A telephone call can give quick information service, such as providing the address of a manufacturer or indicating whether a given publication is held by the library. Time is often saved if an inquirer gives advance notice of an intended visit by telephone, and discusses his needs with the technical specialist in sufficient detail to make a preliminary search of the literature possible. However, telephone service demands immediate attention, is particularly difficult to handle if language problems are involved, and requires considerable skill to achieve satisfactory results. For all these reasons, the small library should not usually try to give very much telephone service.

Inquiries handled entirely by mail present special difficulties in that the inquiry seldom states the problem clearly and may lead either to quick frustration on the part of the inquirer or to protracted correspondence with little guarantee of satisfactory results. Hence, in general, correspondence should provide answers to inquiries made in person when it is not practical

[illegible] in the field and will [illegible] are referred by mail to the ISA [illegible] Inquiry Service, Washington 25, D.C.

Figure 3a. Library Exhibit of Industrial Products. Courtesy Sperry Rand Corp., New York

Exhibits and Displays

The librarian, working in cooperation with the technical specialist, should display modest but attractive and frequently-changed exhibits in the library. Such exhibits may include posters, photographs, pamphlets, and books selected to illustrate a particular subject or theme. These displays are particularly effective if they are timed to coincide with a seminar, film showing, or other event being held on the display theme. Exhibits of industrial products are also appropriate. (See Figure 32.)

A separate and prominent shelf for new additions to the library should be maintained. Bulletin boards can be used for displaying book-jackets of new books, announcements of relevant coming events, and interesting newspaper and magazine clippings. Exhibits should be purposeful in content, visually attractive, easy to understand, and frequently changed.

Loan Policies and Records

The library should lend its materials for use outside the library as generously as possible. The aim is to get the library's materials used by the largest number of people in the most convenient way. This goal should determine which materials can be borrowed, by whom, and for how long.

The loan policy is also affected by the extent to which it is possible to distribute copies of needed materials free of cost. However, the library should always keep two copies of all materials distributed, one marked "File copy" for reference use in the library and the other for circulation on loan.

In most small libraries, these considerations mean that reference books (such as encyclopedias, dictionaries, and directories) and current issues of periodicals must be used in the library, but virtually all other materials can be borrowed. Unless good reasons indicate otherwise, loan materials should include not only books but also pamphlets, back issues of periodicals, graphics such as maps, charts and diagrams, and films, if handled by the library. In some cases, as a substitute for loans, reproduced copies of short items, such as articles from much-used periodicals, graphics and file copies of reports, should be made if feasible.

Materials are usually loaned for two weeks, but renewals should be allowed unless the material is actually needed in the library. All loans should be made free of cost. It is usually unwise (in terms of discouraging library use and damage to public relations) to charge fines on overdue returns. At the discretion of the library staff, the borrower should usually

be required to pay replacement costs of expensive books lost or damaged by him, but the occasional loss of a pamphlet or other "expendable" items should be overlooked as perfectly normal occurrences in the course of operating a busy and useful loan service.

Loan Records. Loan records should be simple and they should be kept accurately. The records should show quickly what is on loan, who has it, and when it is due for return.

In a small library, where much of the collection consists of non-book materials (pamphlets, reports, and periodicals), a double-entry loan system using carbon-copy mimeographed slips or a specially printed voucher pad is recommended. This system is described in detail below. Its advantages are that it saves much time in preparing material for the shelves, eliminates the use of book-cards and pockets, avoids the nuisance of requiring a borrower's card, and provides for keeping one record under the author of the publication on loan and the other under the date due. Its disadvantage is that it requires time and care on the part of the librarian when items are being charged out, but a rush at the desk is unusual in a small library.

The system requires the following supplies: A stock of 3 x 5 inch circulation slips (mimeographed or printed), as shown in Figure 33; a small

Class B Number 10	Date 7 July 1960
AUTHOR	Corbin, Walter Earl
TITLE	Metallic Ore Explorations
Borrower's Name (Print)	JAMES MANRED
Borrower's Address	14-17 RAY ROAD, KANO CITY
Borrower's Signature	James Manred

Figure 33. Circulation Slip

stock of carbon paper cut into 3 x 5 inch pieces to insert between each two circulation slips to make a double-entry record; a date stamp, adjusted daily to indicate the date due; and two file drawers (press-board, steel, or wood), one fitted with a set of alphabetical guide cards, A to Z, for filing slips by author, and the other with a set of numbered guide cards, 1 to 31, for filing the duplicate slips by the date materials are due for return.

Book Charging. The detailed steps to be followed in loaning books and other materials are outlined below:

1. Insert a piece of carbon paper between two circulation slips.

2. Fill out the slip in neat and legible writing, including the borrower's name and address, stamp the date due, and have the borrower sign his name.

3. Use a separate set of circulation slips for each book borrowed.

4. Stamp the date due on the date slip (which is already gummed to the inside front cover of the book). Hand the book to the borrower. Do not keep him waiting after these steps are complete.

5. File one slip under the author in the alphabetical file, and the duplicate under the date due in the date file. The alphabetical record tells the librarian quickly what books are on loan and who has them; the date record makes it possible to call in loans promptly and handle renewals easily. Make sure that circulation slips are made out for all books and other materials loaned to the staff. This is very important, both for keeping accurate records of library use and to be able to locate every item quickly.

6. The loans should be counted, before filing the slips, on a quick-tally sheet (lined to show books, periodicals, vertical file material, and films in separate columns) and totaled at the end of the day for entry in the permanent circulation record kept in a bound notebook.

7. When the books are returned, look in the date due file for the day shown on the date-due slip in the book, and in the author file, and remove and cross through both slips. It is absolutely essential to do this work accurately as inaccurate loan records are hardly worth keeping. Some libraries find it useful to keep one copy of all cancelled circulation slips for use in analyzing circulation in the library's annual report; the duplicate slip should be destroyed at once. If cancelled slips are retained, they should be kept in a separate drawer and discarded as soon as the annual report is written.

8. Notices for overdue books should be sent promptly on the day after the book is due, with a second notice one week later. A simple form, which can be appropriately checked and used for overdues, renewals, and for reserving books, is shown in Figure 34. It can be mimeographed on 3 x 5 inch paper slips for internal use and on post-cards for mail dispatch.

6 July 1960
(date)

LIBRARY NOTICE

Please come to the library to see about:

Cenozoic Metallic Ore Explorations

X Now ready for you as requested
___ Now needed in the library; please return
___ Now overdue
___ Second Notice

___ Check here to renew the loan recorded above, and mail this card to the library at once. Publications marked "Now needed" cannot be renewed.

Figure 34. Library Notice

Periodical Charging. Back issues of periodicals should be allowed to circulate as freely as possible. They are loaned exactly like books, except that the letters PER should be written on the top of the circulation slip, with the title and date of the issue of the periodical written in place of the author and title of the book.

The slips should then be filed alphabetically by the title of the periodical in the author file, and under the date due in the date file. A separate slip should be used for each different periodical title loaned. However, loans for several issues of the same title may be recorded on a single set of slips.

Charging Vertical File Materials

1. Vertical file materials should be allowed to circulate freely except for items constantly in use in the library. Usually several items, such as pamphlets, photographs, maps, and separate periodical articles on the same subject, are wanted.

2. Group materials on the same subject together. Write on the circulation slip the letters VF in place of the call number, and the subject heading, which is already on the material, in place of the author. Count and record on the circulation slip the number of items to be taken. Use a separate set of circulation slips for each subject. Stamp the date due and have the borrower sign the slips.

3. Put the materials into a large brown paper envelope (9 x 12 inches is a convenient size). Stamp the date due, and write on the outside of the envelope the subject headings and number of items taken under each subject.

4. One copy of the circulation slip should be filed alphabetically by subject in the author file. Another copy should be filed according to the date it is supposed to be returned in a "Date Due" file.

5. When the material is returned, count the pieces, remove and cancel the circulation slips, and replace the items promptly in the vertical file. Do not fret if an occasional piece vanishes. Constant use involves a certain amount of loss and most vertical file material though useful is expendable.

Charging Films and Filmstrips

1. In a small or developing industry program, the loan of films and filmstrips may be handled by the library. If this

is the case, the library should take its responsibilities seriously and keep such loan records with the greatest care.

2. The same loan procedures used for books should be followed, except that each film or filmstrip should be recorded by title and the designation "Film" or "Filmstrip" written at the top of the circulation slip.

3. Time loans usually have to be much stricter for films and filmstrips. Hence the date for return should be impressed on the borrower, together with any other conditions governing the loan. If any item has been secured by the library on loan from ICA or some other agency, the name of the agency from which it was borrowed should be written on the circulation slips.

4. Circulations slips for films and filmstrips should be kept in a special section in the front of the author and date files, marked with a labeled guide card. Overdue notices should be sent out promptly. It may be noted that some film libraries send a messenger to get the film if two overdue notices do not result in its return.

Circulation Statistics

Circulation statistics should be recorded daily in a bound notebook. Only materials loaned for use outside the library should be counted. The record of books used in the library is too difficult to keep accurately, and hence the number of visitors who come to the library is recorded instead. A count of telephone and mail inquiries handled should also be kept.

In small libraries, the simple form shown in Figure 35 will be adequate.

MONTH: June 1960

Day	Books	Periodicals	Vertical File Items	Films	Filmstrips
1	17	14	7	1	3
2	11	18	9	0	2
3	21	10	0		
4	2				

Figure 35. Monthly Circulation Record

Annual circulation statistics should be compiled on the basis of the monthly reports and included in the library's annual report. It is also worth while to comment briefly on the over-all use made of the collection, including outstandingly useful individual titles and subjects, and kinds of materials most and least in demand, as a part of the narrative account of the library's yearly work. Such evaluation is a practical aid in building up the library's resources and services along needed lines.

As the library grows, a more detailed circulation report which records the materials circulated by classification number may become advisable.

Registration of Library Users

A record which many technical libraries find worth keeping is a register of its users, kept on cards filed alphabetically by the patron's last name. This file is used to build up mailing lists to receive library accessions lists and other publications, as a practical aid in selecting books and other materials, developing services, and indicating to what extent the library is or is not reaching the community it is intended to serve.

When a visitor comes to the library for the first time, he is asked to register by filling out a 3 x 5 inch card (see Figure 36) which records

SHENITI, (last name)	AHMED (first name)	15 June 1960 (date)
Signature: Ahmed Sheiti		
Organization or Firm: Eastern Trading Company		
Business address: 16 Main St., Central City		
Occupation: Sales Manager		
Home address: 132 River Road, Central City		
Special interests: Advertising, Sales Training, Credit Selling and Buying		

Figure 36. Registration Card

his name, business address, firm or organization (if any), occupation, and special interests. The back of the card can be used for futher information, if necessary. The librarian then types or neatly writes the patron's name on the top line (with the family name first), insures that the rest of the information given is legible, stamps the date of registration on the card, and files the card alphabetically in the registration file.

As the registration record should show the actual number of users and the correct address of each, it must be kept up to date through systematic re-registration. The expiration date is usually three years from the date of registration.

Re-registration can be done very simply. On the day re-registration begins, place a guide card at the end of the registration record marked "New Series". File alphabetically all cards received thereafter behind this guide card. Pull out the original registration card, redate it, and place it in the "New Series" section of the registration file. (Library users should not be asked to re-register before the end of their three-year registration period.) At the end of one year from the start of re-registration, withdraw and destroy all cards remaining in front of the New Series guide card.

Making the Library's Resources Known

It has often been said that the best advertisement is a satisfied customer. The library makes no exception to this business rule. In most government and business circles, word of a good service tends to be spread quite widely by people who have used it with happy results. Conversely, the effects of poor service can be very damaging. Thus, the first step the library must take to maintain and then enlarge its clientele and its sphere of influence is to serve its present users well.

In addition, the library should take active steps to bring the knowledge of the information coming into its collection to the attention of individuals and organizations that would benefit from its resources, even though they do not as yet make use of the library. Beyond this, the library should also play its part in helping to make the full range of services and opportunities available through the cooperative industry program (including participant training, training courses, consultant services, and technical information materials) widely known and understood in the host country, and thus help in creating good will for the total program.

To assist in this process, the library should undertake to disseminate information in various ways adjudged suitable to the particular local situation. A number of ways of doing so which have been found effective in industry programs in different countries are outlined below.

Selected Lists of Library Accessions

Most libraries find it useful to issue a monthly or fortnightly selected list of new additions to the library. Noteworthy books, pamphlets, industry and other reports, trade catalogs, and important periodical articles should be included. Complete or partial tables of contents of particularly useful periodicals, such as the ICA Technical Digest, might be included in a special section of the list, if desired. The list should be compiled in consultation with the technical specialist, as he is in the best position to assess the worth of the materials.

In general, such lists are most effective if they are arranged by subject, with brief annotations added where needed to make clear the scope and contents of the item or to point out features of special interest.

To prepare the list, make out a 3" x 5" slip for each item, giving complete bibliographical information (author, title, publisher, place, date, number of pages, illustrations or bibliographies if any), and annotation, if needed. It saves time to make these slips when cataloguing or filing new material. File slips alphabetically by author in a drawer or box marked "Selected Accessions List." After the list has been prepared, destroy the slips.

The list should be mimeographed, using both sides of 8 x 11 inch paper (this is much handier for most organizations to use and file than legal-size paper). The list should be circulated when ready from the mission to host-country institutions and to individuals and organizations on the library's mailing list.

Bibliographies and Reading Lists

The library should prepare special bibliographies and reading lists both on its own and as requested. Most often these will be called for in connection with seminars and training courses held locally, and should be prepared in consultation with the training officer in charge. In general, such lists should include only materials which the library can provide on the spot. It may be useful to send out some of these lists to selected individuals and organizations (particularly other libraries and universities in the area) which are known to be interested in the particular subject. Usually a short, carefully selected list is more useful than a lengthy one, particularly since the small library is seldom in a position to undertake an exhaustive literature search. It is very important also to make full use of the many excellent bibliographies already prepared by the ICA Technical Aids Branch.

Articles in Periodicals and Newspapers

If the local Industry Center issues its own periodical publication, this normally provides a convenient outlet for telling an interested audience about developments in the library and encouraging the readers of the journal to use its services and materials.

Such a journal might also include book reviews, abstracts, or even the complete text of an important article (often translated into the language of the country), with a note indicating that these and further materials on the subject are available in the library.

Local newspapers may from time to time run items about the library, such as a photograph of an important person or group taken while visiting the library, or a short feature story about its collection and services. Exhibits of local products of industry held in the library are another means of getting occasional notice in the press. Such newspaper items have good publicity value for the total program.

Outside Displays and Exhibits

In addition to exhibits held in the library, it is often well worth-while to send materials for display and distribution to relevant conferences, conventions, and other group meetings.

Careful arrangements with the organizers of the meeting should be made well in advance, both to insure that the specific interests of the group are clearly understood and to secure adequate space. The presentation becomes particularly effective if a knowledgable technician can attend the meeting and talk to the group, with time for follow-up with interested individuals after or between sessions.

Briefings and Conducted Tours

Briefings about the technical information materials and services available in the library should be included as a part of the get-acquainted program of each new staff member and as a regular feature at seminars and other training courses conducted at the local Industry Center. Relevant literature, including copies of recent accessions lists, and a short, attractively-prepared information brochure about the library might be distributed at such training courses.

"Open days," with conducted tours of the library, can help to stimulate use, if the size of the library's premises permit, and if the tour is interestingly presented. A strong information staff should always be "at home" on such days or when lectures or other special meetings bring key people together at the headquarters of the industry program.

Many other ideas for using and publicizing the full range of the technical aids services are contained in various information bulleting issued by the Technical Aids Branch, ICA/Washington. These bulletins merit study.

Suggested Reading

ICA, Technical Aids Branch, Industrial Technical Aids Services, Washington, D.C., n.d., 35 pp. Free.

ICA, Technical Aids Branch, Technical Inquiry Service, Washington, D.C., n.d., 17 pp. Free.

ICA, Technical Aids Branch, Technical Literature Service, Washington, D.C., 1953, 44 pp. Free.

Mitchell, A. C., A Brief for Corporation Libraries: A Guide for Their Operation and Management. New York, Special Libraries Association, 1949, 53 pp. 50¢

Jackson, Lucille, ed., Technical Libraries: Their Organization and Management, New York, Special Libraries Association, 1951, 202 pp. $6.00.

CHAPTER VIII

DISTRIBUTION OF MULTIPLE-COPY MATERIALS

In addition to the publications in the lending collection, the librarian is responsible for maintaining and issuing a stock of multiple-copy materials for free distribution.

The purpose of this part of the program of the technical library is to provide the widest possible dissemination of technical literature. Some publications can be read in the library, or borrowed for use at office or home--the reader can take notes, digest the information, and apply elsewhere without having the reference at hand; others should be available for on-the-spot reference, or further distribution. For example, an employer who has had to hire untrained workers on a construction job wants to teach these workers how to use tools. He might read or borrow a book entitled "Civilization Through Tools" to get ideas for an initial orientational talk to them on the benefits that tools have brought mankind; but then he will require some practical material to show what these tools are for and how to use them properly. Thus, he should be given a small illustrated manual such as "How to Use Hand Tools" that he can show to his workers as he takes them step-by-step through such operations as hammering a nail, until they learn the skill. If his workers can read, he might even want enough copies to give one to each of them.

Material for Distribution

The distinction between material that may be requested for free distribution and that which can only be borrowed is a financial one; the latter are either in short supply or are too expensive for the library to stock multiple copies. For example, construction specifications are contained in such reference books as "Handbook of Building Construction," which costs $17.50. Few libraries can afford to have more than one reference copy.

If the inquirer finds information in such a book that he wishes to copy, this service can be provided as indicated in Chapter IX. More than

likely, however, there are available several inexpensive pamphlets dealing with various phases of this subject that can be obtained from various agencies.

The kind of materials the library can stock and distribute are those issued in quantity at little or no cost by various government and private agencies. A list of such agencies appears at the end of this chapter. The librarian must know these sources and check frequently with them for new materials being issued. It is a good idea to make periodic visits or at least telephone calls to all these agencies to see what new items they have prepared.

Identifying Multiple-Copy Material

The librarian who is preparing material for the vertical files should scan the items carefully. If he sees free material that he thinks should be stocked for free distribution, he should recommend to his supervisor that multiple copies be obtained. If it is published locally, he should know how to get extra copies. If funds are required, the supervisor will handle the purchase.

Once the library starts collecting such material, it should be organized and stored in such a way that it is readily available. The easiest method of physically handling this material is to build or have built a series of bins. These need be only rough boards, bamboo cages, plywood or whatever material is easiest and cheapest to obtain. The bins should be of equal size, capable of storing the largest publications. Figure 37 illustrates multiple-copy storage shelving.

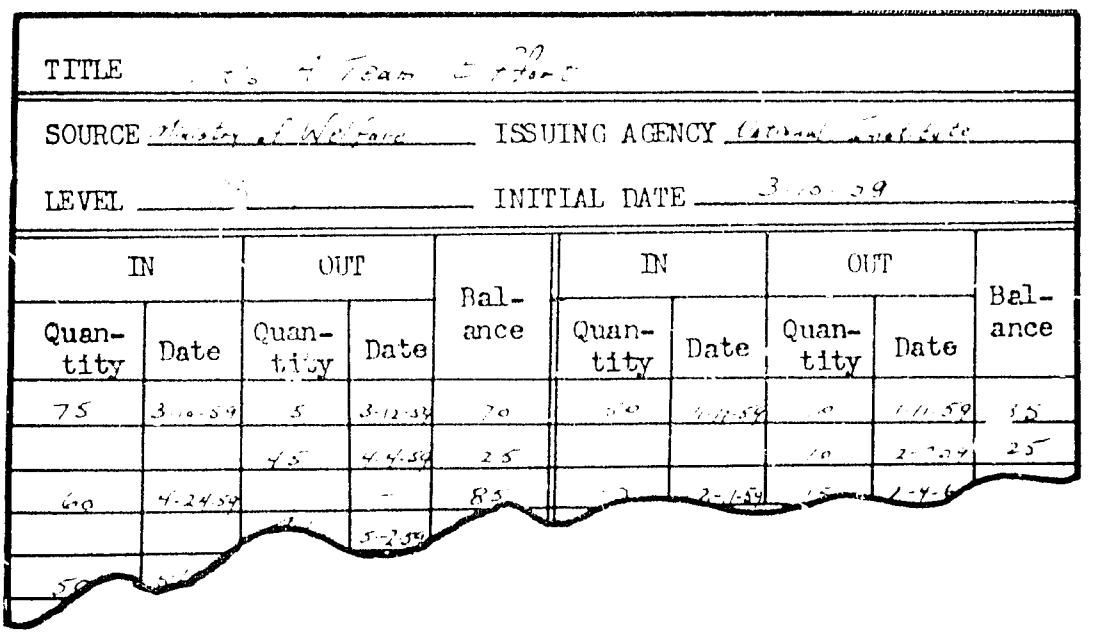
Figure 37. Multiple-copy Storage Shelving. Courtesy Sperry Rand Corp., New York

Storing Free-Distribution Material

Free-distribution material should be stored separately from reference material, preferably in a separate room. This will avoid the two kinds of publication getting mixed up, and insure that they go to those who need and use them and not to casual collectors who happen to drop into the library.

A copy should be placed in the reference collection before any material is put in the bins. Probably the easiest and most efficient way to arrange the material in the bins is alphabetically by title, a separate title in each bin if possible. The object is not to fill the bins but to locate any title desired easily and quickly.

As soon as material for free distribution comes in, a Stock Record Card (see Figure 38) should be filled in that shows title, issuing agency,



TITLE [illegible]

SOURCE [illegible] ISSUING AGENCY [illegible]

LEVEL [illegible] INITIAL DATE 3-10-59

IN		OUT		Balance	IN		OUT		Balance
Quantity	Date	Quantity	Date		Quantity	Date	Quantity	Date	
75	3-10-59	5	3-12-59	70	50	4-[illegible]-59	10	4-11-59	15
		45	4-4-59	25			10	2-[illegible]-59	25
60	4-24-59		-	85	-	2-1-59	15	4-7-6	
		1	5-2-59						
50	[illegible]								

Figure 38. Stock Record Card

quantity received and when, source, and level. The source is where the publication comes from (not always the same as the issuing agency); level, the minimum number of copies that, in the librarian's judgment, should be kept on hand. Each card should be kept in the bin with the title it refers to. Each time a copy is given away, the number should be entered in the "Out" column, and subtracted from the total, with the

remainder to go into the "Balance" column, as shown in the sample. As soon as the number in the "Balance" column falls to the number the librarian has decided should be the minimum level, more copies should be obtained from the organization listed as the source.

Inventories

At regular periods, at least every six months, inventory should be taken from the Stock Record Cards. Any material that has not been requested during that period is not likely to be needed; it should be disposed of on the advice and consent of the library's supervisor. On the other hand, there will be some materials that have had to be replenished more than once. Perhaps the librarian should not only raise the level but also try to find additional publications on the same subject.

Availability

Although copies must be given out judiciously, it is necessary to advertise this part of the service so that those who are entitled to the material will know it is available. A small stock of sample copies could be placed on a table or mounted on the bulletin board with a sign indicating that copies can be obtained for the asking. It is easy to screen the requests and politely refuse those who are known to have no real use for the material. When a stock of new items comes in, persons who might be interested in having copies may be notified by a note or telephone. The librarian should not attempt to maintain a mailing list unless you have a full-time clerk to do this job.

The following is a list of organizations from which a technical library will most likely receive multiple copies:

USOM in your country

Technical Abstracts Bureau

United States Information Service

United Nations and its specialized agencies

Local and foreign government agencies

Professional associations

Private industries

Suggested Reading

Materials available free of charge from the Technical Aids Branch, International Cooperation Administration, Washington 25, D.C.

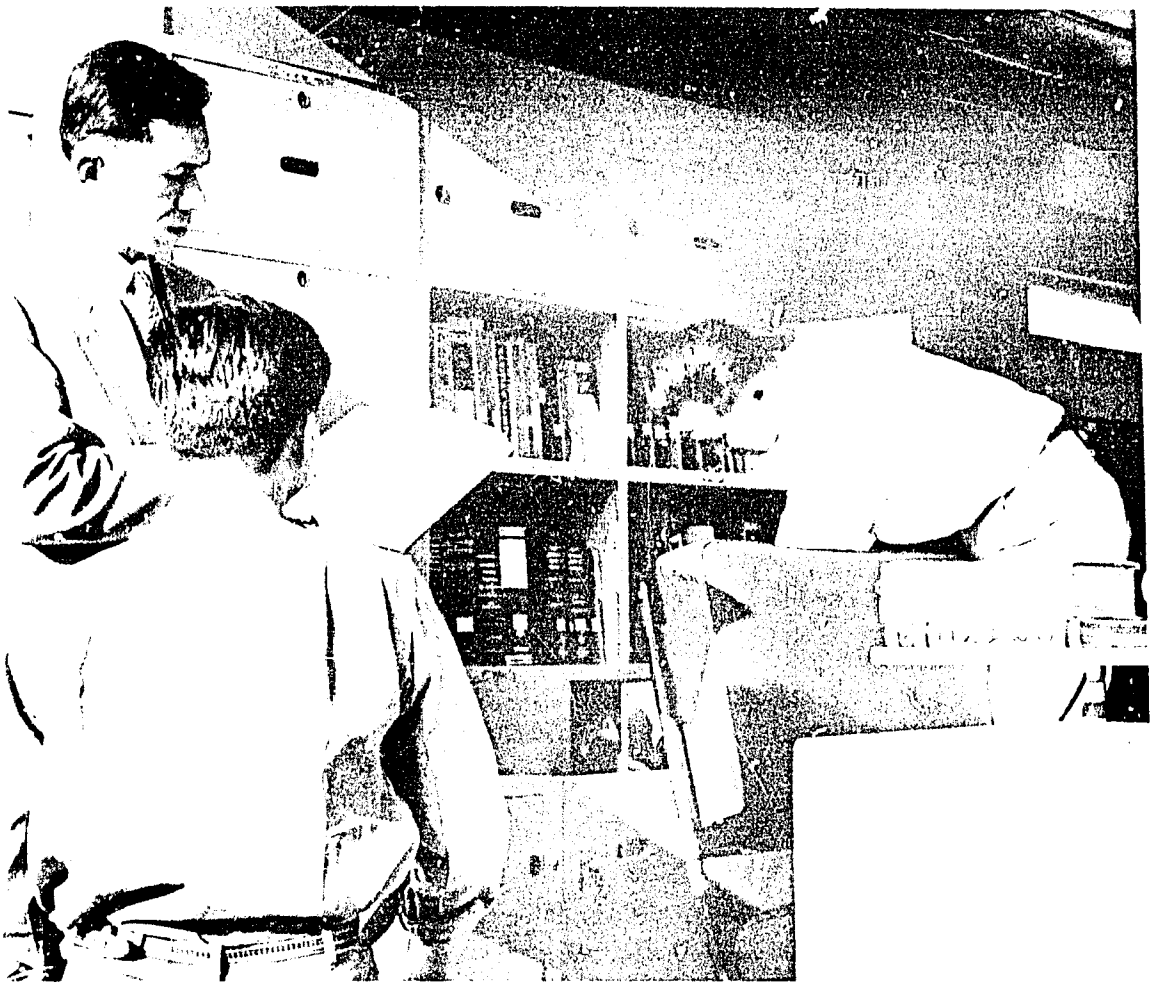
Training Materials Service. 16 pp.

U.S. Book Exchange Service. 15 pp.

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib (4 Palace Gate, W.8), 1955, 387 pp. $5.00.

Jackson, L., ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th St.), 1951, 202 pp. $6.00.

Weil, B. H., and Lane, J. C., "Reproduction Techniques for Reports and Information Service," J. Chem. Education, 25, 134-41 (1948).



CHAPTER IX

MULTI-COPY REPRODUCTION

The purpose of this chapter is to outline briefly how the small library can use various kinds of photographic copies of materials to enlarge its collection and to extend additional services to its users.

Photocopies, particularly Photostats and microfilm, make it possible for a small library to draw on the resources of large and important libraries, both in and outside the country, to supplement its literature resources. Photocopies are most often used to secure single copies of periodical articles, pamphlets, or excerpts of a few pages from large volumes which are too valuable or too much in demand to be obtained through interlibrary loan. In addition, photocopies of materials, including those made by the small library itself using inexpensive office copying equipment, can also make it possible for the library to expand considerably its loan service to its readers.

To use photocopies effectively, it is necessary to understand the basic characteristics of each of the main photo reproduction processes used by libraries, including the advantages and limitations of each process.

Photostats

The word Photostat is the trade name for a process using a large (and very expensive) camera which produces an exact photocopy which can be read easily by the naked eye. Enlarged or reduced copies of the original can also be made, if desired. A Photostat negative (white letters on a black background) is easily readable and is all that is ordinarily required.

The standard 11-1/2 x 14 inch Photostat will accommodate two facing pages of all patents (some large drawings excepted) and most books and periodicals.

Typical charges for Photostats in the United States include a service charge of 25 cents for each book, volume, or piece. Single negatives or

positives (any number of positives can be made from a single negative) less than 11 1/2 x 14 inches in size cost about 35 cents when obtained from the Photographic Service Division, New York Public Library, Fifth Avenue and 42nd Street, New York 17, N.Y. A charge of 70 cents is made for 14 x 18 inch negatives or positives, and 18 x 24 inch photostats cost $1.15 each.

The chief advantages of photostats are that they can be read as produced (without any reading equipment); they provide a permanent copy of the original which light does not damage; and they can be put in folders and treated exactly like pamphlets for storage and loan purposes. Their chief disadvantage is their relatively high cost compared to microfilm.

In situations where microfilm readers are available, a practical rule is to get a Photostat of items up to ten pages, and microfilms of longer ones.

Microfilm

Microfilming is the name given to a process of photographic copying in which the image of the text is so reduced in size that optical enlargement by the use of a reading machine is necessary before the text can be read.

Microfilms are usually produced on roll film 16 or 35 mm wide. Microsheets (also called transparent microfiche) and opaque micropaper (also called opaque microfiche) is also available. Bulky and expensive equipment is needed to make microfilms and the whole procedure must be carried out with skill and care.

Typical charges for microfilm in the United States are stated as charges for negatives of ordinary copy, per frame, when requested on a single order. The charge is approximately five cents per frame for material shown in less than 500 frames; $0.045 per frame for the next 500 frames, and $0.035 per frame for more than 1,000 frames.

The chief advantage of microfilm is that, if microfilm readers (see Figure 39) are available, its use permits the small library to obtain valuable materials, including long runs of expensive periodicals, at relatively low cost. The enormous reduction in storage space made possible by using microfilm is a further major advantage in some situations.

Two main factors impede the extensive use of microfilms by small libraries: (1) Good microfilm readers are expensive and very few small libraries can afford to buy them; and (2) not many readers would willingly choose to read microfilm by means of a projector if they could get access to normal print.

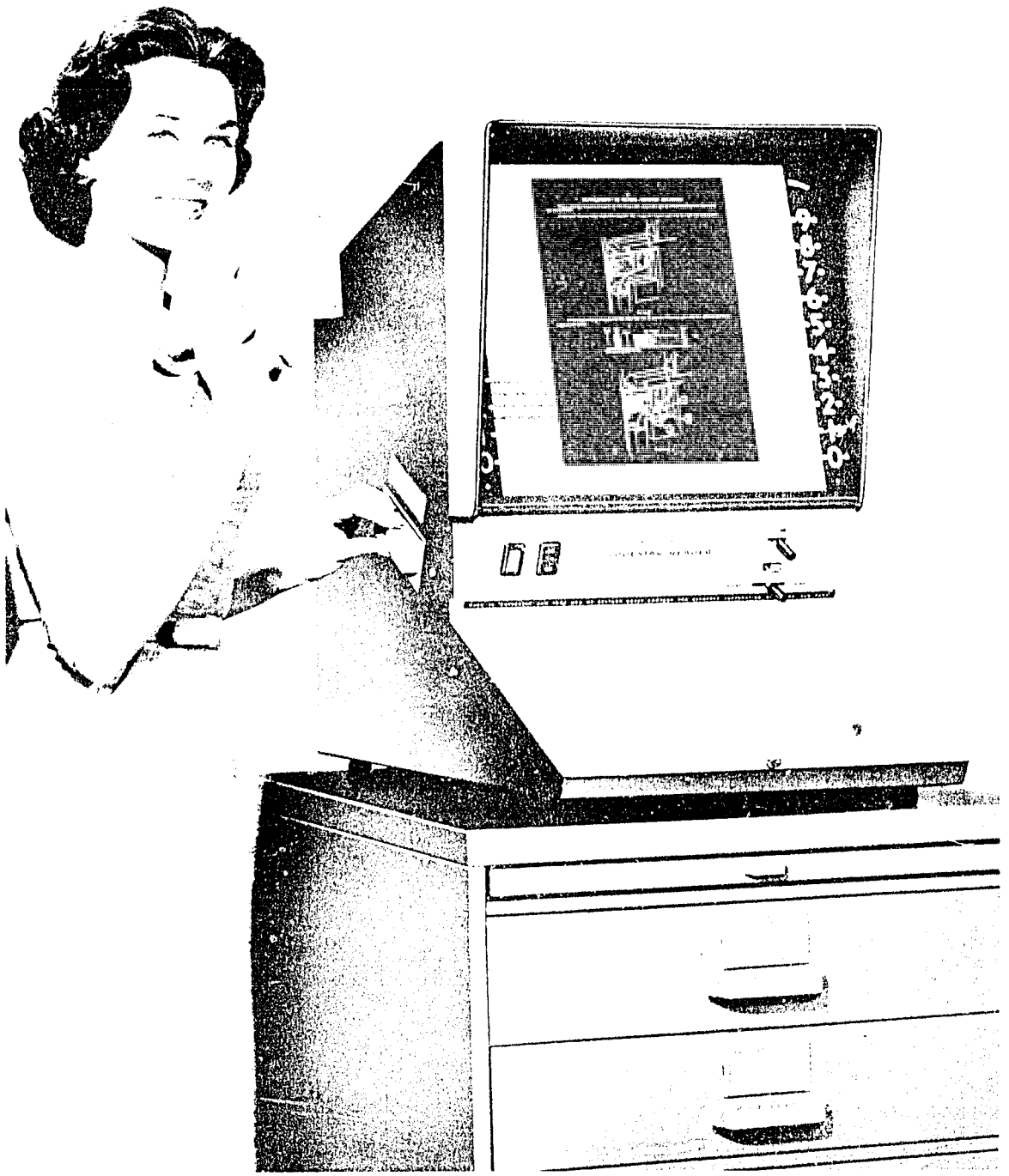


Figure 39. Recordax Microfilm Reader. Courtesy Recordax Corp., New York

Nevertheless, the importance of microfilm as often the only practical means of obtaining otherwise inaccessible material is very real and should be recognized.

To promote the use of microfilm, the technical information specialist and the librarian should find out whether and where good microfilm readers are available in the local community. Such information, and sometimes the reader itself, might be found at the libraries operated by the United States Information Service. Some of the larger university libraries as well as some embassies, consulates, and military installations may be provided with reading machines. It is not unlikely that permission to use the machines could be obtained for persons referred to the officials in charge by the technical library.

Such contacts also provide good opportunities for building up close working relationships with respect to facilities and materials of many sorts which might be mutually very helpful.

Obtaining Photocopies

It is essential to provide accurate and complete bibliographical information to the supplying library concerning each item for which photocopies are requested. Exact instructions must also be given as to the kind of photocopy process to be used (Photostat or microfilm) and the number of copies required, together with any special instructions. The requesting library must also assume complete responsibility for all questions of copyright that may be involved.

Printed order forms are available free on request from the various services which supply photocopies and should be sent for, as they typically include a schedule of rates and other relevant information.

Payment for photocopies is usually required in advance. As a convenience to users, some services operate a coupon or deposit account system to avoid the nuisance of small invoices.

Some photographic services and sources are:

Bibliofilm Service U.S. Department of Agriculture Library, Washington 25, D.C. This very extensive service draws on virtually all of the resources of the many libraries located in Washington, D.C. Printed forms and coupons are available.

Photographic Service New York Public Library, Fifth Avenue and 42nd Street, New York 17, N.Y. The large holdings of this library and its excellent

copying service make this a particularly useful source. A deposit account may be carried but is not required. (The minimum initial deposit is $25.00.)

Photoduplication Service, U. S. Library of Congress, Washington 25, D.C. This service is a particularly important resource for technical materials.

American Library Association. Resources and Technical Services Division, Copying Methods Section. Directory of Institutional Photoduplication Services in the United States, compiled by Cosby Brinkley. University of Chicago Library, Photoduplication Service, Chicago, 1959. 46 pp. $1.00.

Directory of Photocopying and Microcopying Services. 2d. rev. ed. The Hague (c/o Willem Witsenplein), Netherlands: International Federation for Documentation, 1961. 72 pp. This unique international directory lists names and addresses of services in many countries which make their services available to inquirers from abroad. Prices are given and the UNESCO coupon scheme, which makes payment possible in local currencies, is fully explained.

Providing Photocopies in the Small Library

The chief use of photocopies made by the small library itself is to provide a means to circulate a single copy of a short periodical article, typewritten report, or other small item which is too much in demand for the original to be loaned.

Copies are reproduced photographically using a simple office copying machine (see Figure 40) which requires no special skill to operate. As the photocopy is an exact image of the original, it is essential that the process be used only to make copies from originals already in an acceptable form.

Photocopies complement the use of typewritten or mimeographed copies in that they reproduce exactly not only text but also drawings, plans and other illustrations.

A recommended process for making office photocopies is Thermo-Fax. This is a single-step, dry method which requires simply insertion in the machine and involves no handling of chemicals. The entire copying operation takes about four seconds.

The material used in this process is a thin, heat-sensitized paper which is not affected by normal light and can therefore be operated in any room. It is usually available in various colors, the most popular being buff.

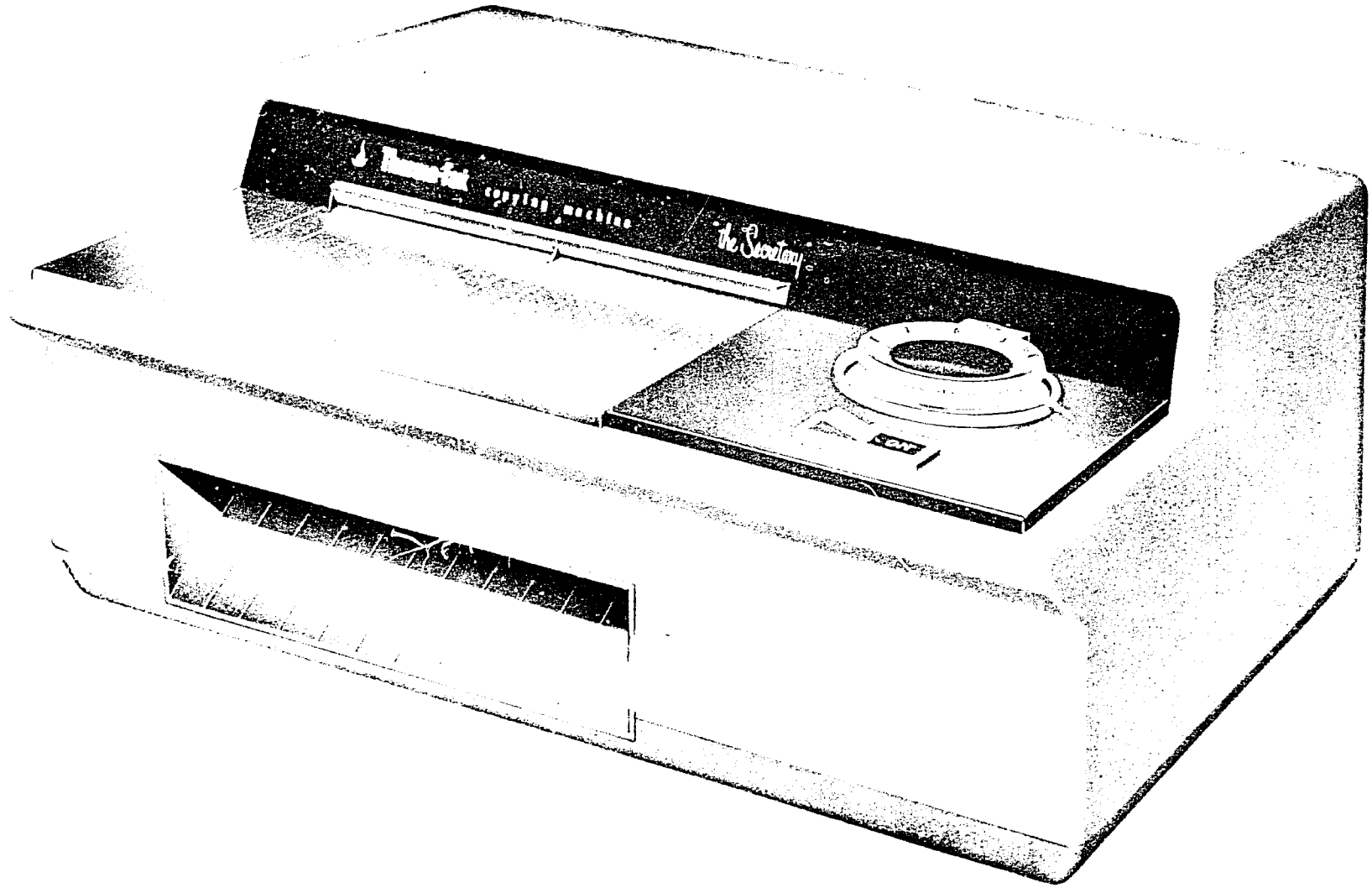


Figure 40. Thermo-Fax Copying Machine. Courtesy Thermo-Fax Sales, Inc., New York

The copies have black lettering and are reasonably easy to read if the original is clearly legible.

The chief advantages of the process are speed and ease of operation. Its disadvantages are: (1) the high cost of the sensitized paper (five cents per copy) restricts the number of copies which can be made economically; (2) the image is permanent to light but will be destroyed eventually by heat; and (3) it can be used to produce copies only when the original is clearly readable and is not more than 8-1/2 inches wide.

It should be noted that when it becomes necessary to type a document because of illegibility, it is cheaper to make typewritten carbon copies or a stencil for mimeographing (if many copies are needed) than to use photography.

It is important to emphasize that Thermo-Fax photocopies are designed to assist the work of the typist and not to replace it. However, properly used, photocopy by Thermo-Fax is complementary to the typewriter and provides a relatively inexpensive and most useful library aid.

Suggested Reading

Fussler, H., "The Use of Microphotography and Photocopying Methods in Libraries," Library Trends, Vol. 5, October 1956, pp. 265-293.

Verry, H. R., Document Copying and Reproduction Processes, London, Foundation Press, 1958, 328 pp. $11.50.

BIBLIOGRAPHY

The following bibliography lists and describes a selection of books, pamphlets and other materials considered to be particularly useful for librarians working in overseas technical libraries:

The ICA Cooperative Industry Program

The following information bulletins, available free from the Technical Aids Branch, International Cooperation Administration, Washington 25, D.C., should be read and carefully studied by all members of the library staff:

Industrial Program of the International Cooperation Administration, 28 pp.

A clear statement of the aims and over-all operation of the ICA Industry Program.

Industrial Technical Aids Services, 35 pp.

A useful overview of the various technical aids services, with practical suggestions for their use in country programs.

The Technical Inquiry Service, 17 pp.

A detailed description of this important service and how it works, with examples of types of inquiries received and answered.

The U.S. Book Exchange Service, 33 pp.

This interesting illustrated special bulletin gives detailed information concerning the types of publications available and includes a sample membership agreement for overseas libraries.

Films - Loan Films for your Conferences, Seminars, Special Showings, Training Programs, 66 pp.

An annotated subject catalog, with an alphabetical index of film titles which lists and describes the many films available on loan from the U. S. Operations Mission or ICA Representatives in your country.

Library Work and Training

Special Librarians. Chicago, Science Research Associates, 1946, 4 pp. $0.15.

A short, well-written leaflet on the duties of librarians for work in specialized libraries, with particular stress on the professional spirit of service.

"Employers' Evaluation of Training Desirable for the Special Librarian," Special Libraries, November, 1948, pp. 309-13.

Outlines the skills and training which executives think librarians should have.

Library Organization and Administration

Ashworth, Wilfred, ed., Handbook of Special Librarianship and Information Work, London, Aslib. (4 Palace Gate, W. 8), 1955, 387 pp. $8.00.

A detailed and comprehensive handbook, useful both to librarians and subject specialists concerned with technical information and library service. Includes particularly good chapters on library planning, service routines, reference and information work, abstracting, translations, and publications of the library and information division. Extensive bibliographies are given at the end of each chapter.

Jackson, Lucille, ed., Technical Libraries; Their Organization and Management, New York, Special Libraries Association (31 East 10th Street), 1951, 202 pp. $5.00.

A basic general manual on how to build up the collection and provide effective reference and information service.

Mews, Hazel, Books are Tools: The Organization of Small Technical Libraries for South African Industries, Pretoria, South African Council for Scientific and Industrial Research (P.O. Box 395), 1951, 28 pp. 2s,6d.

A short practical handbook which outlines briefly the functions and operations of the small technical library.

Mitchell, Alma C., A Brief for Corporation Libraries, New York, Special Libraries Association (31 East 10th Street), 1949, 59 pp. $0.50.

A general manual which includes guidance both for the executive planning to start a library and for the librarian on how to run it.

Nielander, Ruth, Dollars and Sense of a Company Library, New York, Special Libraries Association (31 East 10th Street), 4 pp. Free.

A short, lively leaflet on the uses of an industry library with practical suggestions on how to get started.

Vormelker, Rose, The Company Library, What It Is and Does, New York, 1951, 20 pp. (Reprinted from The Journal of Industrial Training, September-October, 1951, issued by McGraw-Hill Book Company.) Free.

A brief pamphlet on how to start a small technical library, written especially for those who have not had professional library training.

Library Quarters

Sledge, Jeanette, A Suggested Checklist for Library Planning, prepared for the Institute on Library Planning held in New York City, April 18-19, 1958, New York, Special Libraries Association, 1958, 11 pp. (offset) Free on request.

Detailed practical information on planning and arranging library quarters; useful for small as well as larger technical libraries.

Library Equipment and Supplies

Useful illustrated catalogues and pamphlets on library planning, equipment, and supplies are available free on request from various library supply houses, such as:

Demco Library Supplies
Madison, Wisconsin, USA

Gaylord Brothers
Syracuse, N.Y., USA

Library Bureau Division,
Remington Rand
315 Fourth Avenue
New York 10, N.Y., USA

Miscellaneous Resources

Annotated lists of publications are available free on request from, and some consultant services are also provided by:

Association of Special Libraries and
Information Bureaux (ASLIB)
4 Palace Gate
London, W.8, England

Special Libraries Association
31 East 10th Street
New York 3, N.Y., USA

United Nations Educational, Scientific and
Cultural Organization (UNESCO)
Libraries Division
Place de Fontenoy
Paris 7, France

Standard Industrial Classification Manual, U.S. Bureau of The Budget. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. $2.50.